

**TDMS No.** 20009 - 04  
**Test Type:** CHRONIC  
**Route:** DOSED WATER  
**Species/Strain:** MICE/B6C3F1

**P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL**  
beta-Picoline  
**CAS Number:** 108-99-6

**Date Report Requested:** 05/27/2011  
**Time Report Requested:** 09:52:36  
**First Dose M/F:** 11/09/04 / 11/08/04  
**Lab:** BAT

F2\_M3

**C Number:** C20009  
**Lock Date:** 05/05/2008  
**Cage Range:** ALL  
**Date Range:** ALL  
**Reasons For Removal:** ALL  
**Removal Date Range:** ALL  
**Treatment Groups:** Include ALL  
**Study Gender:** Both  
**TDMSE Version:** 2.4.1.0\_004  
**PWG Approval Date:** 12/14/2010

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<b>B6C3F1 MICE MALE</b>	DAY ON TEST	0 7 3 1	0 5 4 3	0 7 3 2	0 6 7 0	0 5 5 6	0 7 5 3	0 7 7 3	0 6 7 2	0 7 7 3	0 7 7 3	0 5 4 1	0 4 7 5	0 7 7 3	0 6 5 1	0 5 6 4	0 7 7 3	0 7 7 3	0 7 7 3	0 7 7 3	0 7 7 3	0 7 7 3	0 7 7 3	<b>males (cont...)</b>
	ANIMAL ID	0 0 0 0 1	0 0 0 0 2	0 0 0 0 3	0 0 0 0 4	0 0 0 0 5	0 0 0 0 6	0 0 0 0 7	0 0 0 0 8	0 0 0 0 9	0 0 0 0 0	0 0 0 0 1	0 0 0 0 1	0 0 0 0 1	0 0 0 0 1	0 0 0 0 1	0 0 0 0 1	0 0 0 0 1	0 0 0 0 1	0 0 0 0 2	0 0 0 0 2	0 0 0 0 2	0 0 0 0 3	

**ALIMENTARY SYSTEM**

Esophagus	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Gallbladder	+	+	+	+	A	A	+	+	A	+	+	+	+	A	+	+	A	A	A	+	+	+	+	+
Intestine Large, Cecum	+	+	+	+	A	A	+	+	A	+	+	+	A	A	+	+	A	A	A	+	+	+	+	+
Intestine Large, Colon	+	+	+	+	+	A	+	+	A	+	+	+	+	A	+	+	A	A	A	+	+	+	+	+
Intestine Large, Rectum	+	+	+	+	+	A	+	+	A	+	+	+	A	A	+	+	A	A	A	+	+	+	+	+
Intestine Small, Duodenum	+	+	+	+	+	A	+	+	A	+	+	+	A	A	+	+	A	A	A	+	+	+	+	+
Intestine Small, Ileum	+	+	+	+	A	A	+	+	A	+	+	+	A	A	+	+	A	A	A	+	+	+	+	+
Intestine Small, Jejunum Diverticulum	+	+	+	+	A	A	+	+	A	+	+	A	A	A	+	+	A	A	A	+	+	+	+	+
Liver	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Angiectasis																							2	
Basophilic Focus			X		X	X												X						
Clear Cell Focus	X		X				X			X		X			X		X			X				
Eosinophilic Focus	X		X				X	X				X	X					X	X	X		X	X	
Hematopoietic Cell Proliferation																								
Mixed Cell Focus													X											
Necrosis					2													3					3	
Mesentery																								
Inflammation, Chronic Active						+												+			+			

\* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade  
 + .. Tissue examined microscopically  
 X .. Lesion present  
 I .. Insufficient tissue  
 M .. Missing tissue  
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B6C3F1 MICE MALE 0 mg/l	DAY ON TEST	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	ANIMAL ID	* TOTALS		
	5	5	4	5	4	5	7	6	7	7	7	7	6	4	4	7	6	7	7	5	7	5	5			7	
	6	9	4	8	0	9	3	1	3	3	3	3	4	5	6	3	2	3	3	9	1	2	0	3	0		
	7	6	1	5	2	0	2	3	2	2	1	1	1	8	5	0	1	4	1	1	4	7	4	5	1	0	
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2	2	2	2	3	3	3	3	3	3	3	3	3	4	4	4	4	4	4	4	4	4	4	4	5	6	
	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	6	

Adrenal Medulla Hyperplasia	+	+	+	+	+	+	+	+	+	+	+	+	2	+	+	+	+	+	+	+	+	+	+	+	49	1 2.0
Islets, Pancreatic	+	+	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49	
Parathyroid Gland	+	M	+	+	+	+	+	+	+	+	M	+	M	+	+	+	+	M	+	+	M	+	+	+	37	
Pituitary Gland Thrombosis	+	+	+	+	+	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	47	1 4.0
Pars Distalis, Hyperplasia											3															1 3.0
Thyroid Gland	+	+	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49	

**GENERAL BODY SYSTEM**

NONE

**GENITAL SYSTEM**

Coagulating Gland Inflammation, Suppurative																												2	1 3.0
Epididymis	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50				
Preputial Gland Inflammation, Chronic Active	+	+	+	+	+	+	+	+	+	+	+	+	3	+	+	+	+	+	+	+	+	+	+	+	50	3 2.7			
Prostate Inflammation, Suppurative	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	4	+	+	+	+	2	+	+	50	4 2.8			
Seminal Vesicle	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	47				

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B6C3F1 MICE MALE 0 mg/l	DAY ON TEST	ANIMAL ID																								* TOTALS
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5	5	4	5	4	5	7	6	7	7	7	7	7	6	4	4	7	6	7	7	5	7	5	5	7	
	6	9	4	8	0	9	3	1	3	3	3	3	3	4	5	6	3	2	3	3	9	1	2	0	3	
	7	6	1	5	2	0	2	3	2	2	1	1	1	8	5	0	1	4	1	1	4	7	4	5	1	
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2	2	2	2	3	3	3	3	3	3	3	3	3	3	4	4	4	4	4	4	4	4	4	4	5	
	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	

Inflammation, Suppurative	4																								1 4.0	
Testes Atrophy	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50 1 3.0

**HEMATOPOIETIC SYSTEM**

Bone Marrow	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Lymph Node Renal, Hyperplasia, Lymphoid	+																								2 1 4.0	
Lymph Node, Mandibular	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Lymph Node, Mesenteric	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	A	+	+	+	M	+	+	+	45
Spleen Hematopoietic Cell Proliferation Hyperplasia, Lymphoid	A	+	A	+	A	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	46 1 4.0 2 2.0
Thymus	A	+	+	+	A	+	+	A	M	M	+	+	M	+	+	+	+	+	+	+	+	+	+	+	41	

**INTEGUMENTARY SYSTEM**

Mammary Gland	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	0
Skin Cyst Epithelial Inclusion Inflammation, Chronic Active	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50 1 2.0 2 4.0

**MUSCULOSKELETAL SYSTEM**

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B6C3F1 MICE MALE 0 mg/l	DAY ON TEST																									* TOTALS	
	0567	0567	0445	0545	0545	0572	0676	0777	0777	0777	0777	0666	0444	0444	0777	0666	0777	0777	0555	0777	0555	0557	0777				
ANIMAL ID	00026	00027	00028	00029	00030	00031	00032	00033	00034	00035	00036	00037	00038	00039	00040	00041	00042	00043	00044	00045	00046	00047	00048	00049	00050		
Bone	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50		
Skeletal Muscle																									1		
<b>NERVOUS SYSTEM</b>																											
Brain	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50		
Glial Cell, Pigmentation						1																			1 1.0		
<b>RESPIRATORY SYSTEM</b>																											
Lung	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50		
Hemorrhage																									2 1.5		
Inflammation, Granulomatous																									1 3.0		
Alveolar Epithelium, Hyperplasia																2		3						1	4 1.8		
Alveolus, Infiltration Cellular, Histiocyte																							3	1	2 2.0		
Bronchiole, Hyperplasia										1															1 1.0		
Nose	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50		
Inflammation, Suppurative					1																				4 1.5		
Olfactory Epithelium, Atrophy							1																	1	3 1.3		
Olfactory Epithelium, Metaplasia, Respiratory											1	1													8 1.0		
Respiratory Epithelium, Hyperplasia	3		1			1		3		1	1	1	2	1					1		1			1	18 1.3		
Trachea	A	+	+	+	A	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	47		
<b>SPECIAL SENSES SYSTEM</b>																											
Eye	A	A	+	+	A	+	+	A	+	+	+	+	+	+	+	+	+	+	A	+	+	A	+	+	36		
Degeneration																								4	1 4.0		

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B6C3F1 MICE MALE 0 mg/l	DAY ON TEST																							* TOTALS	
	0567	0567	0441	0542	0542	0570	0772	0772	0772	0772	0772	0644	0644	0732	0732	0732	0579	0579	0579	0579	0579	0579	0579		
ANIMAL ID	0026	0027	0028	0029	0030	0031	0032	0033	0034	0035	0036	0037	0038	0039	0040	0041	0042	0043	0044	0045	0046	0047	0048		
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	46	
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	
	2	2	2	2	3	3	3	3	3	3	3	3	3	3	3	4	4	4	4	4	4	4	4	5	
	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0

Retina, Hemorrhage, Chronic 3 1 3.0

Harderian Gland Hyperplasia + + + + + + + A + + + + + + + + + + + + + + + + + + + 46 1 3.0

**URINARY SYSTEM**

Kidney Cyst + 50 1 2.0  
 Hydronephrosis 1 3.0  
 Inflammation, Suppurative 3 3 2 3.0  
 Metaplasia, Osseous 2 2 4 1.3  
 Mineralization 2 3 1 3 3 2 2 2 1 2 1 2 2 3 2 1 1 2 3 2.0  
 Nephropathy 2 3 1 3 3 2 2 2 2 1 2 1 2 2 3 2 1 1 2 43 2.0  
 Thrombosis 3 1 3.0  
 Papilla, Necrosis 4 4 2 4.0  
 Renal Tubule, Pigmentation 4 4.0

Urethra Inflammation, Suppurative + 3 3 1 3.0

Urinary Bladder Hemorrhage + + + + A + + + + + + + + + + + + + + + + + + 45 1 3.0  
 Inflammation, Suppurative 3 1 1.0

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	<b>312.5 mg/l</b>	ANIMAL ID	0051	0052	0053	0054	0055	0056	0057	0058	0059	0060	0061	0062	0063	0064	0065	0066	0067	0068	0069	0070	0071	0072		0073

**ALIMENTARY SYSTEM**

Esophagus	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Gallbladder Degeneration, Hyaline	+	+	+	A	A	+	+	+	A	+	A	+	+	+	+	+	A	M	A	A	+	A	+	A	+
Intestine Large, Cecum	+	A	+	A	A	+	+	+	A	+	A	+	+	+	+	+	A	+	A	A	A	A	+	A	+
Intestine Large, Colon	+	+	+	A	+	+	+	+	+	A	+	+	+	+	+	+	A	+	A	+	A	A	+	A	+
Intestine Large, Rectum	+	A	+	A	+	+	+	+	+	A	+	+	+	+	+	+	A	+	A	+	A	A	+	A	+
Intestine Small, Duodenum	+	A	+	A	A	+	+	+	A	+	A	+	+	+	+	+	A	+	A	+	A	A	+	A	+
Intestine Small, Ileum	+	A	+	A	A	+	+	+	A	+	A	+	+	+	+	+	A	+	A	+	A	A	+	A	+
Intestine Small, Jejunum Peyer's Patch, Hyperplasia, Lymphoid	+	A	+	A	A	+	+	+	A	+	A	+	+	+	+	+	A	+	A	+	A	A	+	A	+
Liver	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Angiectasis																									2
Basophilic Focus					X				X	X							X		X		X				X
Clear Cell Focus			X			X	X			X		X								X	X	X	X	X	X
Eosinophilic Focus	X					X		X		X		X	X			X	X	X		X					
Fatty Change																									
Mixed Cell Focus							X																		X
Necrosis												3				3									
Mesentery																									

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	0 7 3 2	0 6 4 2	0 7 3 2	0 7 1 5	0 5 9 3	0 7 3 2	0 7 3 1	0 7 3 2	0 5 8 3	0 7 3 2	0 6 3 7	0 7 3 1	0 5 8 0	0 7 3 0	0 7 3 1	0 6 9 0	0 7 3 1	0 6 5 5	0 4 7 0	0 6 3 8	0 7 3 2	0 4 0 7	0 7 3 4	0 7 0 5		
<b>312.5 mg/l</b>	0 0 0 5 1	0 0 0 0 2	0 0 0 5 3	0 0 0 5 4	0 0 0 5 5	0 0 0 5 5	0 0 0 5 5	0 0 0 5 5	0 0 0 5 5	0 0 0 5 6	0 0 0 6 6	0 0 0 6 6	0 0 0 6 6	0 0 0 6 6	0 0 0 6 6	0 0 0 6 6	0 0 0 6 7	0 0 0 6 8	0 0 0 6 9	0 0 0 7 0	0 0 0 7 1	0 0 0 7 2	0 0 0 7 3	0 0 0 7 4	0 0 0 7 5	

Pancreas	+	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	A	+
Salivary Glands	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Stomach, Forestomach Hyperplasia, Squamous Ulcer	+	+	+	A	+	+	+	+	+	+	A	+	+	+	+	+	+	+	+	+	+	A	+	
Stomach, Glandular Mineralization Ulcer	+	A	+	A	+	+	+	+	+	+	A	+	+	+	+	+	A	+	+	+	+	+	A	+
Tooth Dysplasia	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

**CARDIOVASCULAR SYSTEM**

Heart	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Cardiomyopathy	1				1				1	1	2					1					1		
Mineralization																							
Necrosis																							
Thrombosis									2	4													

**ENDOCRINE SYSTEM**

Adrenal Cortex	+	+	+	+	+	+	+	+	+	+	+	+	+	+	A	+	+	+	+	+	+	+	+
Atrophy																							
Hyperplasia	2				2								2								2		
Hypertrophy					2	2					2		2							2			2
Subcapsular, Hyperplasia																							

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 1-4 .. Lesion qualified as:  
 1) Minimal 3) Moderate  
 2) Mild 4) Marked

TDMS No. 20009 - 04  
 Test Type: CHRONIC  
 Route: DOSED WATER  
 Species/Strain: MICE/B6C3F1

**P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL**  
 beta-Picoline  
 CAS Number: 108-99-6

Date Report Requested: 05/27/2011  
 Time Report Requested: 09:52:36  
 First Dose M/F: 11/09/04 / 11/08/04  
 Lab: BAT

B6C3F1 MICE MALE 312.5 mg/l	DAY ON TEST																									ANIMAL ID	males (cont...)
	0732	0642	0772	0775	0577	0777	0777	0777	0777	0577	0776	0777	0777	0575	0777	0777	0676	0776	0575	0474	0676	0777	0474	0777			
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	00051	
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	00052	
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	00053	
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	00054	
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	00055	
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	00056	
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	00057	
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	00058	
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	00059	
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	00060	
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	00061	
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	00062	
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	00063	
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	00064	
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	00065	
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	00066	
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	00067	
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	00068	
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	00069	
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	00070	
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	00071	
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	00072	
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	00073	
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	00074	
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	00075	
Adrenal Medulla Hyperplasia	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	A	+	+	+	+	+	+	+		
Islets, Pancreatic Hyperplasia	+	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	A	+		
Parathyroid Gland	+	M	M	+	+	+	M	+	+	+	+	+	M	M	+	+	+	+	+	M	M	+	+	+	M		
Pituitary Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	A	+		
Thyroid Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		

**GENERAL BODY SYSTEM**

NONE

**GENITAL SYSTEM**

Epididymis Granuloma Sperm	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Preputial Gland Inflammation, Chronic Active	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	3
Prostate Hyperplasia	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	2
Seminal Vesicle Inflammation, Chronic Active	+	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Testes	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	

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TDMS No. 20009 - 04  
 Test Type: CHRONIC  
 Route: DOSED WATER  
 Species/Strain: MICE/B6C3F1

**P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL**  
 beta-Picoline  
 CAS Number: 108-99-6

Date Report Requested: 05/27/2011  
 Time Report Requested: 09:52:36  
 First Dose M/F: 11/09/04 / 11/08/04  
 Lab: BAT

<b>B6C3F1 MICE MALE</b>	DAY ON TEST	0732	0642	0732	0753	0773	0773	0773	0753	0776	0777	0773	0773	0575	0777	0776	0676	0765	0654	0667	0774	0747	0773	<b>males (cont...)</b>		
	<b>312.5 mg/l</b>	0005	0005	0005	0005	0005	0005	0005	0005	0006	0006	0006	0006	0006	0006	0006	0006	0006	0007	0007	0007	0007	0007			
	ANIMAL ID	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5

Atrophy  
 Interstitial Cell, Hyperplasia 2  
2

**HEMATOPOIETIC SYSTEM**

Bone Marrow	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Lymph Node																								
Lymph Node, Mandibular	+	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Lymph Node, Mesenteric	+	+	+	A	+	+	+	+	+	+	+	+	+	+	+	A	+	+	+	+	+	+	+	+
Spleen Hematopoietic Cell Proliferation	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	A	+	+	+	+	+	+	A	+
Thymus	+	+	+	A	+	+	+	+	+	+	+	+	+	+	+	A	+	M	+	+	+	+	+	+

**INTEGUMENTARY SYSTEM**

Mammary Gland	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M
Skin Inflammation, Chronic Active	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+

**MUSCULOSKELETAL SYSTEM**

Bone	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
------	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

**NERVOUS SYSTEM**

Brain	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
-------	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

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 beta-Picoline  
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B6C3F1 MICE MALE 312.5 mg/l	DAY ON TEST																									ANIMAL ID	males (cont...)
	0 7 3 2	0 6 4 2	0 7 3 2	0 7 1 5	0 5 9 3	0 7 3 2	0 7 3 1	0 7 3 2	0 5 3 3	0 7 8 2	0 6 3 7	0 7 3 1	0 7 3 0	0 5 8 0	0 7 3 1	0 7 3 2	0 6 9 0	0 7 3 1	0 6 0 5	0 5 4 5	0 6 3 8	0 7 3 2	0 4 3 7	0 6 0 8			
Kidney	+																										
Hydronephrosis																											1
Infarct																											
Metaplasia, Osseous																											1
Mineralization																											1
Nephropathy	2	3	2	2	2	2	2	2	1	2	1	2	3	1	2	1		3	3	2	1	2	2	1	1		
Artery, Inflammation, Chronic Active																											3
Renal Tubule, Hypertrophy																											
Urethra																											
Inflammation, Suppurative																											+
																											+
																											2
																											3
Urinary Bladder																											
Hemorrhage	+	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	A	+	+	+	A	+	+	A	+		

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<b>B6C3F1 MICE MALE</b>	DAY ON TEST	0732	0731	0732	0762	0772	0772	0764	0771	0771	0755	0774	0767	0772	0767	0752	0755	0773	0767	0772	0772	0773	0763	0766	0773	<b>* TOTALS</b>
	ANIMAL ID	00076	00077	00078	00079	00080	00081	00082	00083	00084	00085	00086	00087	00088	00089	00090	00091	00092	00093	00094	00095	00096	00097	00098	00099	

**ALIMENTARY SYSTEM**

Esophagus	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	<b>50</b>	
Gallbladder Degeneration, Hyaline	+	+	+	+	+	+	A	+	+	+	+	A	A	+	A	+	+	+	A	+	+	A	A	+	<b>33</b>	<b>1 3.0</b>	
Intestine Large, Cecum	+	+	+	+	+	+	+	+	+	+	+	A	A	+	A	+	+	+	+	A	+	+	A	+	<b>34</b>		
Intestine Large, Colon	+	+	+	+	+	+	+	+	+	+	+	+	A	+	A	+	+	+	+	+	+	+	A	+	<b>40</b>		
Intestine Large, Rectum	+	+	+	+	+	+	A	+	+	+	+	+	A	+	A	+	+	+	+	+	+	+	A	+	<b>38</b>		
Intestine Small, Duodenum	+	+	+	+	+	+	A	+	+	+	+	A	A	+	A	A	+	+	A	A	+	A	A	+	<b>31</b>		
Intestine Small, Ileum	+	+	+	+	+	+	+	+	+	+	+	+	A	A	+	A	+	+	+	+	A	+	+	A	+	<b>35</b>	
Intestine Small, Jejunum Peyer's Patch, Hyperplasia, Lymphoid	+	+	+	+	+	+	A	+	+	+	+	+	A	A	+	A	+	+	+	A	A	+	A	A	+	<b>32</b>	<b>1 3.0</b>
Liver	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	<b>50</b>		
Angiectasis			3																					2		<b>3 2.3</b>	
Basophilic Focus			X										X				X			X		X				<b>12</b>	
Clear Cell Focus	X			X		X	X		X	X					X			X						X		<b>19</b>	
Eosinophilic Focus	X			X		X						X									X			X		<b>16</b>	
Fatty Change															3											<b>1 3.0</b>	
Mixed Cell Focus							X								X											<b>4</b>	
Necrosis				1													4		4					3		<b>6 3.0</b>	
Mesentery																								+		<b>1</b>	

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B6C3F1 MICE MALE	DAY ON TEST																							* TOTALS
	0732	0731	0732	0732	0762	0772	0772	0762	0772	0772	0752	0772	0762	0772	0752	0752	0772	0762	0772	0772	0762	0762	0772	
312.5 mg/l	ANIMAL ID																							* TOTALS
00076	00077	00078	00079	00080	00081	00082	00083	00084	00085	00086	00087	00088	00089	00090	00091	00092	00093	00094	00095	00096	00097	00098	00099	
Pancreas	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	48
Salivary Glands	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Stomach, Forestomach Hyperplasia, Squamous Ulcer	+	3		+	+	+	+	+	2		+	+	3					1		+	+	+	+	47 4 2.3 3 2.7
Stomach, Glandular Mineralization Ulcer	+	+	+	+	+		+	+	1							1				+	+	1	+	45 2 1.0 2 1.5
Tooth Dysplasia	+	X	+	X	+	X	+	X		+	X	X	X	X	X			+	+	X	X	X	X	41 41
<b>CARDIOVASCULAR SYSTEM</b>																								
Heart	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Cardiomyopathy	1										1			1	1	1			1		2	1	1	17 1.2
Mineralization							2																	1 2.0
Necrosis													2											1 2.0
Thrombosis																								2 3.0
<b>ENDOCRINE SYSTEM</b>																								
Adrenal Cortex	+	+	+	+	+	+	+	+	+	+	+	A	+	+	+	+	+	+	+	+	+	+	+	48
Atrophy																				3				1 3.0
Hyperplasia				2		2				2					2									8 2.0
Hypertrophy	2					2	2					2	2				2			2	2			14 2.0
Subcapsular, Hyperplasia																							2	1 2.0

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ANIMAL ID	00076	00077	00078	00079	00080	00081	00082	00083	00084	00085	00086	00087	00088	00089	00090	00091	00092	00093	00094	00095	00096	00097	00098	
Adrenal Medulla Hyperplasia	+	+	+	+	+	+	+	+	+	+	+	+	A	A	+	+	+	+	+	+	+	+	+	47
																								1 2.0
Islets, Pancreatic Hyperplasia	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	48
	3																							1 3.0
Parathyroid Gland	+	+	+	+	+	M	+	+	+	+	+	M	+	M	+	+	+	+	+	+	+	+	+	39
Pituitary Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49
Thyroid Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
<b>GENERAL BODY SYSTEM</b>																								
NONE																								
<b>GENITAL SYSTEM</b>																								
Epididymis Granuloma Sperm	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
																								1 3.0
Preputial Gland Inflammation, Chronic Active	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
																								3 3.0
Prostate Hyperplasia	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
																								1 2.0
Seminal Vesicle Inflammation, Chronic Active	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	A	+	48
																								1 2.0
Testes	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50

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<b>B6C3F1 MICE MALE</b>	DAY ON TEST	0732	0731	0732	0762	0772	0772	0764	0771	0771	0755	0773	0774	0767	0772	0752	0755	0773	0765	0772	0772	0777	0766	0766	0773	<b>* TOTALS</b>
	ANIMAL ID	00076	00077	00078	00079	00080	00081	00082	00083	00084	00085	00086	00087	00088	00089	00090	00091	00092	00093	00094	00095	00096	00097	00098	00099	

Atrophy	4	<b>2 3.0</b>
Interstitial Cell, Hyperplasia		<b>1 2.0</b>

**HEMATOPOIETIC SYSTEM**

Bone Marrow	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	<b>50</b>	
Lymph Node																											<b>1</b>
Lymph Node, Mandibular	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	<b>49</b>	
Lymph Node, Mesenteric	+	+	+	+	+	+	+	+	+	+	+	+	+	A	+	+	+	+	+	+	A	+	+	A	+	<b>45</b>	
Spleen Hematopoietic Cell Proliferation	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	2	<b>48</b>	<b>1 2.0</b>
Thymus	+	+	+	M	+	+	+	+	+	M	+	M	M	A	+	+	+	+	+	+	+	+	+	+	<b>42</b>		

**INTEGUMENTARY SYSTEM**

Mammary Gland	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	<b>0</b>	
Skin Inflammation, Chronic Active	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	<b>50</b>	<b>1 4.0</b>

**MUSCULOSKELETAL SYSTEM**

Bone	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	<b>50</b>
------	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	-----------

**NERVOUS SYSTEM**

Brain	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	<b>50</b>
-------	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	-----------

\* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade  
 + .. Tissue examined microscopically  
 X .. Lesion present  
 I .. Insufficient tissue  
 M .. Missing tissue  
 A .. Autolysis precludes evaluation  
 BLANK .. Not examined microscopically  
 1-4 .. Lesion qualified as:  
 1) Minimal 3) Moderate  
 2) Mild 4) Marked

TDMS No. 20009 - 04  
 Test Type: CHRONIC  
 Route: DOSED WATER  
 Species/Strain: MICE/B6C3F1

**P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL**  
 beta-Picoline  
 CAS Number: 108-99-6

Date Report Requested: 05/27/2011  
 Time Report Requested: 09:52:36  
 First Dose M/F: 11/09/04 / 11/08/04  
 Lab: BAT

<b>B6C3F1 MICE MALE</b>	DAY ON TEST	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		7	7	7	7	6	7	7	6	7	7	5	7	7	6	7	5	5	7	6	7	7	7	6	6	7	6	6	7	6	6	7	6	6	7	6	7
		3	3	3	3	2	3	3	1	3	3	8	3	0	2	3	1	9	3	7	2	0	3	3	2	3	2	2	3	2	2	3	2	3	2	3	2
<b>312.5 mg/l</b>	ANIMAL ID	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7	7	7	7	8	8	8	8	8	8	8	8	8	8	8	8	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	
	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	
																												<b>* TOTALS</b>									

Hemorrhage

2

1 2.0

**RESPIRATORY SYSTEM**

Lung	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Hemorrhage								1																															1 1.0
Inflammation, Suppurative												4																											1 4.0
Inflammation, Granulomatous																																							1 3.0
Alveolar Epithelium, Hyperplasia								1					1				1																						6 1.2
Alveolus, Infiltration Cellular, Histiocyte																					3																		1 3.0
Nose	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Inflammation, Suppurative												1				1																					1		9 1.1
Olfactory Epithelium, Atrophy													2								1															1		4 1.3	
Olfactory Epithelium, Metaplasia, Respiratory						1						1	1		2	1																						12 1.1	
Respiratory Epithelium, Hyperplasia						1				1	1	1			1						1															2	1	23 1.3	
Pleura							+																																1
Trachea	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49

**SPECIAL SENSES SYSTEM**

Eye	+	+	+	+	+	+	+	+	+	+	+	+	+	+	A	+	A	+	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	39		
Degeneration																																						4		1 4.0	
Harderian Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	47		
Hyperplasia																																									1 2.0

**URINARY SYSTEM**

\* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade  
 + .. Tissue examined microscopically  
 X .. Lesion present  
 I .. Insufficient tissue  
 M .. Missing tissue  
 A .. Autolysis precludes evaluation  
 BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:  
 1) Minimal 3) Moderate  
 2) Mild 4) Marked



TDMS No. 20009 - 04  
 Test Type: CHRONIC  
 Route: DOSED WATER  
 Species/Strain: MICE/B6C3F1

**P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL**  
 beta-Picoline  
 CAS Number: 108-99-6

Date Report Requested: 05/27/2011  
 Time Report Requested: 09:52:36  
 First Dose M/F: 11/09/04 / 11/08/04  
 Lab: BAT

B6C3F1 MICE MALE 312.5 mg/l	DAY ON TEST																								* TOTALS
	0732	0731	0732	0733	0732	0732	0732	0734	0731	0731	0735	0732	0734	0737	0735	0735	0737	0736	0737	0737	0736	0736	0737		
ANIMAL ID	0076	0077	0078	0079	0080	0081	0082	0083	0084	0085	0086	0087	0088	0089	0090	0091	0092	0093	0094	0095	0096	0097	0098		
Kidney	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Hydronephrosis																								2 2.0	
Infarct																								1 2.0	
Metaplasia, Osseous																								4 1.0	
Mineralization																								2 1.0	
Nephropathy	2	2	2	2	3	2	1	3	1	2	1	2	2	4	2	1	2	2	2	2	2	1	2	49 1.9	
Artery, Inflammation, Chronic Active																								1 3.0	
Renal Tubule, Hypertrophy																								1 2.0	
Urethra																								3	
Inflammation, Suppurative																								3 2.3	
Urinary Bladder	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	A	45	
Hemorrhage																								2 1 2.0	

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TDMS No. 20009 - 04  
 Test Type: CHRONIC  
 Route: DOSED WATER  
 Species/Strain: MICE/B6C3F1

**P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL**  
 beta-Picoline  
 CAS Number: 108-99-6

Date Report Requested: 05/27/2011  
 Time Report Requested: 09:52:36  
 First Dose M/F: 11/09/04 / 11/08/04  
 Lab: BAT

<b>B6C3F1 MICE MALE</b> <b>625 mg/l</b>	DAY ON TEST	0551	0731	0732	0548	0654	0756	0435	0753	0733	0733	0733	0733	0566	0556	0733	0770	0773	0773	0773	0622	0522	0477	0733	males (cont...)	
	ANIMAL ID	0010	0011	0012	0014	0015	0017	0018	0019	0020	0021	0022	0023	0024	0025	0026	0027	0028	0029	0030	0031	0032	0033	0034		0035
		1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3		4

**ALIMENTARY SYSTEM**

Esophagus	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Gallbladder Inflammation, Chronic Active	A	+	+	+	A	A	+	+	+	+	+	+	+	A	A	+	+	+	+	+	+	+	A	+	+
Intestine Large, Cecum	+	+	+	A	A	A	+	+	+	+	+	+	+	A	A	+	+	+	+	+	+	+	A	+	+
Intestine Large, Colon	+	+	+	+	A	+	+	+	+	+	+	+	+	A	+	+	+	+	+	+	+	+	+	+	+
Intestine Large, Rectum	+	+	+	+	A	+	+	+	+	+	+	+	+	A	+	+	+	+	+	+	+	+	+	+	+
Intestine Small, Duodenum	A	+	+	A	A	A	+	+	+	+	+	+	+	A	A	+	+	+	+	+	+	A	A	+	+
Intestine Small, Ileum	A	+	+	+	A	A	+	+	+	+	+	+	+	A	+	+	+	+	+	+	+	+	+	+	+
Intestine Small, Jejunum	A	+	+	A	A	A	+	+	+	+	+	+	+	A	A	+	+	+	+	+	+	+	+	+	+
Liver	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Angiectasis																									
Basophilic Focus							X		X					X						X	X				
Clear Cell Focus	X											X	X			X	X					X	X		
Eosinophilic Focus		X				X				X	X			X	X					X	X				
Inflammation, Chronic											1														
Mineralization																									2
Mixed Cell Focus				X										X									X		
Necrosis	2				3																				3
Mesentery																									

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TDMS No. 20009 - 04  
 Test Type: CHRONIC  
 Route: DOSED WATER  
 Species/Strain: MICE/B6C3F1

**P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL**  
 beta-Picoline  
 CAS Number: 108-99-6

Date Report Requested: 05/27/2011  
 Time Report Requested: 09:52:36  
 First Dose M/F: 11/09/04 / 11/08/04  
 Lab: BAT

B6C3F1 MICE MALE 625 mg/l	DAY ON TEST	05	07	07	05	06	05	07	04	07	07	07	07	07	05	05	07	07	07	07	06	05	04	07	ANIMAL ID	males (cont...)
	05	03	03	04	09	06	03	05	03	03	03	03	06	05	03	03	00	03	03	03	02	02	07	03		
	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	
	01	01	01	01	01	01	01	01	01	01	01	01	01	01	01	01	01	01	01	01	01	01	01	01	01	
	00	00	00	00	00	00	00	00	00	01	01	01	01	01	01	01	01	01	01	01	02	02	02	02	02	
	01	02	03	04	05	06	07	08	09	00	01	02	03	04	05	06	07	08	09	00	01	02	03	04	05	

Adrenal Medulla Hyperplasia	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Islets, Pancreatic Hyperplasia	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Parathyroid Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	M	+	M	+	+	+	+	+	+	M
Pituitary Gland Pars Distalis, Hyperplasia	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Thyroid Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+

**GENERAL BODY SYSTEM**

NONE

**GENITAL SYSTEM**

Epididymis	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Preputial Gland Inflammation, Chronic Active	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Prostate Inflammation, Suppurative Inflammation, Chronic Active	+	+	+	+	+	+	+	+	+	+	+	+	A	+	+	+	+	+	+	+	3	+	+	3
Seminal Vesicle Amyloid Deposition	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+

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TDMS No. 20009 - 04  
 Test Type: CHRONIC  
 Route: DOSED WATER  
 Species/Strain: MICE/B6C3F1

**P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL**  
 beta-Picoline  
 CAS Number: 108-99-6

Date Report Requested: 05/27/2011  
 Time Report Requested: 09:52:36  
 First Dose M/F: 11/09/04 / 11/08/04  
 Lab: BAT

B6C3F1 MICE MALE 625 mg/l	DAY ON TEST																									ANIMAL ID	males (cont...)
	0 5 5 1	0 7 3 1	0 7 3 2	0 5 4 8	0 6 9 4	0 5 6 9	0 7 3 2	0 4 5 6	0 7 3 5	0 7 3 6	0 7 3 2	0 7 3 1	0 7 3 2	0 7 3 1	0 5 6 0	0 5 5 6	0 7 3 2	0 7 3 0	0 7 3 3	0 7 3 3	0 6 0 1	0 7 3 1	0 6 2 8	0 5 2 4	0 4 7 0		
Inflammation, Chronic Active																3			4								
Testes	+																										
Atrophy																1							2				
Mineralization																2											
<b>HEMATOPOIETIC SYSTEM</b>																											
Bone Marrow	+																										
Angiectasis																3											
Lymph Node, Mandibular	+																										
Infiltration Cellular, Plasma Cell	+																										
Lymph Node, Mesenteric	+																										
Inflammation, Chronic																A			4								
Spleen	+																										
Thymus	+																										
<b>INTEGUMENTARY SYSTEM</b>																											
Mammary Gland	M																										
Skin	+																										
<b>MUSCULOSKELETAL SYSTEM</b>																											
Bone	+																										

\* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade  
 + .. Tissue examined microscopically  
 X .. Lesion present  
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 BLANK .. Not examined microscopically  
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TDMS No. 20009 - 04  
 Test Type: CHRONIC  
 Route: DOSED WATER  
 Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

beta-Picoline  
 CAS Number: 108-99-6

Date Report Requested: 05/27/2011  
 Time Report Requested: 09:52:36  
 First Dose M/F: 11/09/04 / 11/08/04  
 Lab: BAT

<b>B6C3F1 MICE MALE</b>	DAY ON TEST	0551	0731	0732	0548	0654	0756	0472	0772	0773	0773	0773	0773	0566	0556	0733	0730	0730	0730	0733	0733	0622	0554	0477	0731	<b>males (cont...)</b>
	ANIMAL ID	0010	0001	0001	0001	0001	0001	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	

**NERVOUS SYSTEM**

Brain +

**RESPIRATORY SYSTEM**

Lung +

Thrombosis 2

Alveolar Epithelium, Hyperplasia 4 2

Alveolus, Infiltration Cellular, Histiocyte 4 2

Bronchiole, Hyperplasia 2

Nose +

Inflammation, Suppurative 1 1 1

Olfactory Epithelium, Atrophy 1 2 2

Olfactory Epithelium, Metaplasia, Respiratory 1 2 2 2 1 1 1 1 2 2 2 1 1

Respiratory Epithelium, Hyperplasia 2 1 1 1 2 1 2 1 1 1 1 1 1 2 1 1

Trachea + + + + + + + + + + + + + A + + + + + + + + A + + +

**SPECIAL SENSES SYSTEM**

Eye + + + + A A + + + + + + + A + + + + + + + + + + + +

Degeneration 4

Cornea, Inflammation, Chronic Active 2

Retina, Hemorrhage, Chronic

Harderian Gland + + + + A + + + + + + + + A + + + + + + + + + + + +

Inflammation, Chronic

\* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade  
 + .. Tissue examined microscopically M .. Missing tissue 1-4 .. Lesion qualified as:  
 X .. Lesion present A .. Autolysis precludes evaluation 1) Minimal 3) Moderate  
 I .. Insufficient tissue BLANK .. Not examined microscopically 2) Mild 4) Marked

TDMS No. 20009 - 04  
 Test Type: CHRONIC  
 Route: DOSED WATER  
 Species/Strain: MICE/B6C3F1

**P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL**  
 beta-Picoline  
 CAS Number: 108-99-6

Date Report Requested: 05/27/2011  
 Time Report Requested: 09:52:36  
 First Dose M/F: 11/09/04 / 11/08/04  
 Lab: BAT

B6C3F1 MICE MALE	DAY ON TEST	0																				males (cont...)			
		5	7	7	5	6	5	7	4	7	7	7	7	7	5	5	7	7	7	7	6		5	4	7
625 mg/l	ANIMAL ID	5	3	3	4	9	6	3	5	3	3	3	3	6	5	3	3	0	3	3	3	2	5	4	7
		1	1	2	8	4	9	2	6	2	1	2	1	0	0	6	2	0	0	1	0	1	8	4	3
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
		0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	2	2	2	2	2	2

**URINARY SYSTEM**

Kidney	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Amyloid Deposition																								
Hydronephrosis																						3		
Infarct																								
Metaplasia, Osseous																								
Mineralization																						2		
Nephropathy	1	2	2	1	3	3	2	3	2	2	2	2	2	1	2	1	3	3	2	3	1	2	3	2
Artery, Inflammation, Chronic Active																								
Papilla, Necrosis																								
Renal Tubule, Hyperplasia										2														
Urethra				+																			+	
Inflammation, Suppurative				2																			3	
Urinary Bladder	+	+	+	+	A	+	+	+	+	+	+	+	+	A	+	+	+	+	+	+	+	+	+	
Inflammation, Chronic																								

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TDMS No. 20009 - 04  
 Test Type: CHRONIC  
 Route: DOSED WATER  
 Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL  
 beta-Picoline  
 CAS Number: 108-99-6

Date Report Requested: 05/27/2011  
 Time Report Requested: 09:52:36  
 First Dose M/F: 11/09/04 / 11/08/04  
 Lab: BAT

<b>B6C3F1 MICE MALE</b> <b>625 mg/l</b>	DAY ON TEST	0 7 3 1	0 6 6 1	0 7 3 1	0 7 1 5	0 7 3 2	0 5 1 9	0 7 0 7	0 6 7 0	0 7 3 2	0 7 3 1	0 7 3 1	0 4 9 6	0 7 3 1	0 6 5 9	0 7 3 2	0 7 3 1	0 7 3 2	0 6 3 1	0 7 3 3	0 7 2 0	0 6 5 6	0 5 2 7	0 6 2 6	0 6 8 5	<b>* TOTALS</b>
	ANIMAL ID	0 0 1 2 6	0 0 1 2 7	0 0 1 2 8	0 0 1 2 9	0 0 1 3 0	0 0 1 3 1	0 0 1 3 2	0 0 1 3 3	0 0 1 3 4	0 0 1 3 5	0 0 1 3 6	0 0 1 3 7	0 0 1 3 8	0 0 1 3 9	0 0 1 4 0	0 0 1 4 1	0 0 1 4 2	0 0 1 4 3	0 0 1 4 4	0 0 1 4 5	0 0 1 4 6	0 0 1 4 7	0 0 1 4 8	0 0 1 4 9	

**ALIMENTARY SYSTEM**

Esophagus	+ +																								<b>50</b>	
Gallbladder Inflammation, Chronic Active	+ A + A + + A + + + + A + + + + + + + + + + + + + A +																								<b>39</b>	<b>1 3.0</b>
Intestine Large, Cecum	+ A + A + A A A + + + A + + + + + + + + + + + A A																								<b>36</b>	
Intestine Large, Colon	+ A + A + + A A + + + A + + + + + + + + + + + A A																								<b>41</b>	
Intestine Large, Rectum	+ A + A + + A A + + + A + + + + + + + + + + + A																								<b>42</b>	
Intestine Small, Duodenum	+ A + A + + A A + + + A + + + + + + + + + + + A A																								<b>35</b>	
Intestine Small, Ileum	+ A + A + + A A + + + A + + + + + + + + + + + A A																								<b>39</b>	
Intestine Small, Jejunum	+ A + A + + A A + + + A + + + + + + + + + + + A A																								<b>37</b>	
Liver	+ +																								<b>50</b>	
Angiectasis																										<b>2 2.0</b>
Basophilic Focus	X X																								<b>15</b>	
Clear Cell Focus	X X																								<b>16</b>	
Eosinophilic Focus	X X																								<b>19</b>	
Inflammation, Chronic																									<b>2</b>	<b>1.5</b>
Mineralization																									<b>1</b>	<b>2.0</b>
Mixed Cell Focus																										<b>5</b>
Necrosis	3 X																									<b>6 2.7</b>
Mesentery	+ +																								<b>1</b>	

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 A .. Autolysis precludes evaluation  
 BLANK .. Not examined microscopically  
 1-4 .. Lesion qualified as:  
 1) Minimal 3) Moderate  
 2) Mild 4) Marked



TDMS No. 20009 - 04  
 Test Type: CHRONIC  
 Route: DOSED WATER  
 Species/Strain: MICE/B6C3F1

**P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL**  
 beta-Picoline  
 CAS Number: 108-99-6

Date Report Requested: 05/27/2011  
 Time Report Requested: 09:52:36  
 First Dose M/F: 11/09/04 / 11/08/04  
 Lab: BAT

B6C3F1 MICE MALE 625 mg/l	DAY ON TEST																									* TOTALS
	0731	0661	0771	0773	0775	0777	0676	0777	0777	0777	0474	0777	0676	0777	0777	0777	0777	0777	0676	0777	0777	0676	0575	0676		
ANIMAL ID	001	001	001	001	001	001	001	001	001	001	001	001	001	001	001	001	001	001	001	001	001	001	001	001		
Fat, Necrosis																									2	1 2.0
Pancreas	+	+	+	A	+	+	+	+	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	48	
Salivary Glands	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Stomach, Forestomach Hyperplasia, Squamous Ulcer	+	+	+	A	+	+	+	+	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	47	3 2.7 4 3.0	
Stomach, Glandular Necrosis	+	A	+	A	+	+	+	+	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	43	1 1.0	
Tooth Dysplasia	+	+	+		+	+	+		+	+		+	+	+	+	+		+	+	+	+		+	42		
	X	X	X		X	X	X		X	X		X	X	X	X	X		X	X	X	X		X	42		
<b>CARDIOVASCULAR SYSTEM</b>																										
Heart	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50		
Cardiomyopathy																								7	1.0	
Mineralization			1					1		1						1								1	2.0	
Necrosis																								1	2.0	
Thrombosis																								1	2.0	
Artery, Inflammation, Chronic Active																								1	3.0	
<b>ENDOCRINE SYSTEM</b>																										
Adrenal Cortex	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50		
Hyperplasia				2		2			2	2												2		10	2.0	
Hypertrophy				2		2					2	3			2			2	2					14	2.1	

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 A .. Autolysis precludes evaluation  
 BLANK .. Not examined microscopically  
 1-4 .. Lesion qualified as:  
 1) Minimal 3) Moderate  
 2) Mild 4) Marked

TDMS No. 20009 - 04  
 Test Type: CHRONIC  
 Route: DOSED WATER  
 Species/Strain: MICE/B6C3F1

**P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL**  
 beta-Picoline  
 CAS Number: 108-99-6

Date Report Requested: 05/27/2011  
 Time Report Requested: 09:52:36  
 First Dose M/F: 11/09/04 / 11/08/04  
 Lab: BAT

B6C3F1 MICE MALE 625 mg/l	DAY ON TEST																									* TOTALS
	0731	0661	0763	0771	0773	0571	0770	0670	0772	0773	0773	0479	0773	0675	0773	0773	0773	0773	0773	0676	0773	0676	0575	0676		
ANIMAL ID	00126	00017	00011	00011	00011	00011	00011	00010	00011	00011	00011	00011	00011	00011	00011	00011	00011	00011	00011	00011	00011	00011	00011	00011		
Adrenal Medulla Hyperplasia	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50 1 2.0	
Islets, Pancreatic Hyperplasia	+	+	+	A	+	+	+	+	+	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	48 2 2.0	
Parathyroid Gland	+	+	+	+	+	+	+	M	+	+	+	M	+	+	+	+	+	+	+	+	+	+	M	+	44	
Pituitary Gland Pars Distalis, Hyperplasia	+	+	+	+	+	+	+	+	+	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	49 2 2.5	
Thyroid Gland	+	+	+	+	+	+	+	+	+	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	49	
<b>GENERAL BODY SYSTEM</b>																										
NONE																										
<b>GENITAL SYSTEM</b>																										
Epididymis	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Preputial Gland Inflammation, Chronic Active	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50 4 3.5	
Prostate Inflammation, Suppurative Inflammation, Chronic Active	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	48 2 3.0 1 2.0	
Seminal Vesicle Amyloid Deposition	+	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49 2 3.0	

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 + .. Tissue examined microscopically  
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 A .. Autolysis precludes evaluation  
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 1) Minimal 3) Moderate  
 2) Mild 4) Marked

TDMS No. 20009 - 04  
 Test Type: CHRONIC  
 Route: DOSED WATER  
 Species/Strain: MICE/B6C3F1

**P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL**

beta-Picoline  
 CAS Number: 108-99-6

Date Report Requested: 05/27/2011  
 Time Report Requested: 09:52:36  
 First Dose M/F: 11/09/04 / 11/08/04  
 Lab: BAT

B6C3F1 MICE MALE 625 mg/l	DAY ON TEST																									* TOTALS		
	0731	0661	0731	0775	0779	0577	0676	0777	0777	0777	0474	0776	0677	0777	0777	0777	0777	0777	0676	0777	0777	0676	0575	0676				
ANIMAL ID	00126	00127	00128	00129	00130	00131	00132	00133	00134	00135	00136	00137	00138	00139	00140	00141	00142	00143	00144	00145	00146	00147	00148	00149				
Inflammation, Chronic Active																										3	3 3.3	
Testes	+																									50		
Atrophy																											2 1.5	
Mineralization																											1 2.0	
<b>HEMATOPOIETIC SYSTEM</b>																												
Bone Marrow Angiectasis	+																									A	48	1 3.0
Lymph Node, Mandibular Infiltration Cellular, Plasma Cell	+																									A	49	1 3.0
Lymph Node, Mesenteric Inflammation, Chronic	+																									A	43	1 4.0
Spleen	+																									A	47	
Thymus	+																									M	48	
<b>INTEGUMENTARY SYSTEM</b>																												
Mammary Gland	M																										0	
Skin	+																										50	
<b>MUSCULOSKELETAL SYSTEM</b>																												
Bone	+																										50	

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 + .. Tissue examined microscopically  
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TDMS No. 20009 - 04  
 Test Type: CHRONIC  
 Route: DOSED WATER  
 Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL  
 beta-Picoline  
 CAS Number: 108-99-6

Date Report Requested: 05/27/2011  
 Time Report Requested: 09:52:36  
 First Dose M/F: 11/09/04 / 11/08/04  
 Lab: BAT

<b>B6C3F1 MICE MALE</b> <b>625 mg/l</b>	DAY ON TEST	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
		7	6	7	7	7	5	7	6	7	7	7	4	7	6	7	7	7	7	7	7	6	7	7	6	7	7	6	5	6	5	6	5	6	5	6	5	6	5	6	
	ANIMAL ID	3	6	3	1	3	1	0	7	3	3	3	9	3	5	3	3	3	3	3	0	3	3	3	3	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
	1	1	1	1	5	2	9	7	0	2	1	1	6	1	9	2	2	1	2	4	1	2	4	1	2	0	7	6	5	6	5	6	5	6	5	6	5	6	5	6	
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
	2	2	2	2	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6
																													<b>* TOTALS</b>												

**NERVOUS SYSTEM**

Brain + **50**

**RESPIRATORY SYSTEM**

Lung	+ +	<b>50</b>		
Thrombosis				<b>1 2.0</b>
Alveolar Epithelium, Hyperplasia			3	<b>6 2.7</b>
Alveolus, Infiltration Cellular, Histiocyte			2	<b>3 2.7</b>
Bronchiole, Hyperplasia				<b>1 2.0</b>
Nose	+ +	<b>50</b>		
Inflammation, Suppurative			1 1	<b>9 1.0</b>
Olfactory Epithelium, Atrophy			2 2	<b>8 1.5</b>
Olfactory Epithelium, Metaplasia, Respiratory	1 1 1 2		2 1	<b>30 1.3</b>
Respiratory Epithelium, Hyperplasia	3 1 1		1 1 2	<b>23 1.3</b>
Trachea	+ A + A + + + + + + + + + A + + + + + + + + + + + + + + +	<b>45</b>		

**SPECIAL SENSES SYSTEM**

Eye	+ A + A + + + + + + + + A + + + + + + + + + + + A +	<b>43</b>		
Degeneration				<b>1 4.0</b>
Cornea, Inflammation, Chronic Active				<b>1 2.0</b>
Retina, Hemorrhage, Chronic			3	<b>1 3.0</b>
Harderian Gland	+ A + A +	<b>46</b>		
Inflammation, Chronic			3	<b>1 3.0</b>

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 BLANK .. Not examined microscopically  
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 1) Minimal 3) Moderate  
 2) Mild 4) Marked

TDMS No. 20009 - 04  
 Test Type: CHRONIC  
 Route: DOSED WATER  
 Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL  
 beta-Picoline  
 CAS Number: 108-99-6

Date Report Requested: 05/27/2011  
 Time Report Requested: 09:52:36  
 First Dose M/F: 11/09/04 / 11/08/04  
 Lab: BAT

B6C3F1 MICE MALE	DAY ON TEST	ANIMAL ID																									* TOTALS
		0731	0661	0731	0775	0775	0579	0767	0776	0777	0777	0474	0774	0666	0777	0777	0777	0777	0777	0666	0777	0777	0666	0575	0666		
625 mg/l		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
		2	2	2	2	3	3	3	3	3	3	3	3	3	4	4	4	4	4	4	4	4	4	4	5		
		6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9		

URINARY SYSTEM

Kidney	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50				
Amyloid Deposition																										1	2.0		
Hydronephrosis																										1	3.0		
Infarct																						3				1	3.0		
Metaplasia, Osseous										1																1	1.0		
Mineralization																							2			2	2.0		
Nephropathy		2	2	2	3	2	2	3	3	3	2	4	3	2	2	2	1	2	3	3	2	1	2	3	2	2		49	2.2
Artery, Inflammation, Chronic Active																											1	3.0	
Papilla, Necrosis																							3				1	3.0	
Renal Tubule, Hyperplasia																											1	2.0	
Urethra																											5		
Inflammation, Suppurative																								2			3	2.3	
Urinary Bladder																											45		
Inflammation, Chronic			A																								1	1.0	

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 2) Mild 4) Marked





TDMS No. 20009 - 04  
 Test Type: CHRONIC  
 Route: DOSED WATER  
 Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

beta-Picoline  
 CAS Number: 108-99-6

Date Report Requested: 05/27/2011  
 Time Report Requested: 09:52:36  
 First Dose M/F: 11/09/04 / 11/08/04  
 Lab: BAT

B6C3F1 MICE MALE 1250 mg/l	DAY ON TEST																									ANIMAL ID	males (cont...)
	0730	0732	0734	0735	0736	0737	0737	0737	0737	0737	0737	0736	0737	0735	0736	0735	0737	0737	0737	0737	0737	0737	0737	0736	0735		
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	001	
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	002	
	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	003	
	5	5	5	5	5	5	5	5	5	5	6	6	6	6	6	6	6	6	6	6	7	7	7	7	7	004	
	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	005	
Islets, Pancreatic	+	+	+	+	+	+	+	+	+	+	+	+	+	A	+	+	+	+	+	+	+	+	+	+			
Parathyroid Gland	M	+	+	+	M	M	+	+	+	+	+	M	M	M	+	M	+	M	+	M	+	+	M	M	+		
Pituitary Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	M	+	+	+	+	+	+	+	+	+	+	+		
Thyroid Gland	+	+	+	+	+	+	+	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		

GENERAL BODY SYSTEM

NONE

GENITAL SYSTEM

Epididymis	+	+	+	+	+	+	+	+	+	+	+	+	+	A	+	+	+	+	+	+	+	+	+	+		
Granuloma Sperm Mineralization																									2	
Preputial Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		
Cyst																									3	
Inflammation, Chronic Active																										
Prostate	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		
Inflammation, Suppurative																									2	
Seminal Vesicle	+	+	+	+	+	+	+	+	+	+	+	+	+	A	+	+	+	A	+	+	+	+	+	+		
Amyloid Deposition																									3	
Inflammation, Chronic Active																									2	
Testes	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		

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TDMS No. 20009 - 04  
 Test Type: CHRONIC  
 Route: DOSED WATER  
 Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL  
 beta-Picoline  
 CAS Number: 108-99-6

Date Report Requested: 05/27/2011  
 Time Report Requested: 09:52:36  
 First Dose M/F: 11/09/04 / 11/08/04  
 Lab: BAT

<b>B6C3F1 MICE MALE</b>  <b>1250 mg/l</b>	DAY ON TEST	0 7 3 0	0 7 3 2	0 5 3 4	0 7 3 2	0 4 6 5	0 7 3 2	0 7 3 1	0 7 3 0	0 7 3 0	0 7 3 5	0 6 3 5	0 7 3 1	0 5 8 7	0 5 2 2	0 7 3 1	0 7 3 0	0 7 3 1	0 7 3 2	0 7 3 1	0 7 3 2	0 6 9 0	0 5 7 1	<b>males (cont...)</b>	
	ANIMAL ID	0 0 1 5 1	0 0 1 5 2	0 0 1 5 3	0 0 1 5 4	0 0 1 5 5	0 0 1 5 6	0 0 1 5 7	0 0 1 5 8	0 0 1 5 9	0 0 1 6 0	0 0 1 6 1	0 0 1 6 2	0 0 1 6 3	0 0 1 6 4	0 0 1 6 5	0 0 1 6 6	0 0 1 6 7	0 0 1 6 8	0 0 1 6 9	0 0 1 7 0	0 0 1 7 1	0 0 1 7 2		0 0 1 7 3

Mineralization

2

### HEMATOPOIETIC SYSTEM

Bone Marrow	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		
Lymph Node																							+		
Lymph Node, Mandibular	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		
Lymph Node, Mesenteric Hyperplasia, Lymphoid	+	+	+	+	+	+	+	+	+	A	+	+	+	M	+	+	+	A	+	+	+	+	A	+	
Spleen	+	+	+	+	+	+	+	+	+	A	+	+	+	A	+	+	+	+	+	+	+	+	+	+	
Thymus	+	+	+	+	+	+	+	+	+	A	+	+	+	+	+	+	+	+	+	+	+	M	+	M	+

### INTEGUMENTARY SYSTEM

Mammary Gland	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M
Skin	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+

### MUSCULOSKELETAL SYSTEM

Bone	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
------	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

### NERVOUS SYSTEM

Brain	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
-------	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

\* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade  
 + .. Tissue examined microscopically  
 X .. Lesion present  
 I .. Insufficient tissue  
 M .. Missing tissue  
 A .. Autolysis precludes evaluation  
 BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:  
 1) Minimal 3) Moderate  
 2) Mild 4) Marked

TDMS No. 20009 - 04  
 Test Type: CHRONIC  
 Route: DOSED WATER  
 Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL  
 beta-Picoline  
 CAS Number: 108-99-6

Date Report Requested: 05/27/2011  
 Time Report Requested: 09:52:36  
 First Dose M/F: 11/09/04 / 11/08/04  
 Lab: BAT

B6C3F1 MICE MALE	DAY ON TEST																				ANIMAL ID	males (cont...)				
	0730	0733	0735	0737	0744	0777	0777	0777	0777	0777	0777	0766	0777	0755	0766	0755	0777	0777	0777	0777			0777	0766	0755	
1250 mg/l	0015	0012	0003	0004	0005	0006	0007	0008	0009	0000	0001	0002	0003	0004	0005	0006	0007	0008	0009	0000	0001	0002	0003	0004	0005	

**RESPIRATORY SYSTEM**

Lung	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Thrombosis															1								1	
Alveolar Epithelium, Hyperplasia											2	2							2				1	
Alveolus, Infiltration Cellular, Histiocyte																								
Nose	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Inflammation, Suppurative		1											1			2		2						
Olfactory Epithelium, Atrophy											1		2											
Olfactory Epithelium, Metaplasia, Respiratory		2	2		1	2	1	1		1	1	2	1			3	2	2		3	1	2	1	1
Respiratory Epithelium, Hyperplasia									1			2		1			1						1	
Pleura															+									
Trachea	+	+	+	+	+	+	+	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+

**SPECIAL SENSES SYSTEM**

Eye	+	+	+	+	+	+	+	+	+	A	A	+	+	A	A	+	+	A	+	+	+	+	+	A	A
Degeneration																									
Inflammation, Suppurative																									
Harderian Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	A	+	+	+	+	+	+	+	+	+	A	+
Hyperplasia		2					1																		

**URINARY SYSTEM**

Kidney	+	+	+	+	+	+	+	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Hydronephrosis																3								2	
Inflammation, Suppurative																									

\* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade  
 + .. Tissue examined microscopically  
 X .. Lesion present  
 I .. Insufficient tissue  
 M .. Missing tissue  
 A .. Autolysis precludes evaluation  
 BLANK .. Not examined microscopically  
 1-4 .. Lesion qualified as:  
 1) Minimal 3) Moderate  
 2) Mild 4) Marked

TDMS No. 20009 - 04  
 Test Type: CHRONIC  
 Route: DOSED WATER  
 Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL  
 beta-Picoline  
 CAS Number: 108-99-6

Date Report Requested: 05/27/2011  
 Time Report Requested: 09:52:36  
 First Dose M/F: 11/09/04 / 11/08/04  
 Lab: BAT

B6C3F1 MICE MALE 1250 mg/l	DAY ON TEST	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	ANIMAL ID	males (cont...)	
	7	7	5	7	4	7	7	7	7	7	6	7	5	6	5	7	7	7	7	7	7	7	7	7	6			5
		3	3	3	3	6	3	3	3	3	1	7	3	3	8	2	3	3	0	3	1	3	3	3	9	7		
		0	2	4	2	5	2	1	0	0	5	5	1	4	7	2	1	2	9	1	0	2	1	2	0	1		
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
		5	5	5	5	5	5	5	5	5	6	6	6	6	6	6	6	6	6	7	7	7	7	7	7	7		
		1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5		
Metaplasia, Osseous					1																							
Mineralization															2													
Nephropathy		2	3	2	3	2	2	2	2	3		3	3	2	2	2	2	2	2	2	2	2	4	3	2			
Papilla, Necrosis															3													
Renal Tubule, Pigmentation										3																		
Urethra																												
Inflammation, Suppurative																												
Urinary Bladder		+	+	+	+	+	+	+	+	+	A	+	+	+	A	+	+	+	A	+	+	+	+	+	+			

\* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade  
 + .. Tissue examined microscopically  
 X .. Lesion present  
 I .. Insufficient tissue  
 M .. Missing tissue  
 A .. Autolysis precludes evaluation  
 BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:  
 1) Minimal 3) Moderate  
 2) Mild 4) Marked



TDMS No. 20009 - 04  
 Test Type: CHRONIC  
 Route: DOSED WATER  
 Species/Strain: MICE/B6C3F1

**P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL**  
 beta-Picoline  
 CAS Number: 108-99-6

Date Report Requested: 05/27/2011  
 Time Report Requested: 09:52:36  
 First Dose M/F: 11/09/04 / 11/08/04  
 Lab: BAT

B6C3F1 MICE MALE 1250 mg/l	DAY ON TEST																								* TOTALS					
	0732	0733	0734	0735	0736	0737	0738	0739	0740	0741	0742	0743	0744	0745	0746	0747	0748	0749	0750	0751	0752	0753	0754	0755		0756	0757	0758	0759	0760
ANIMAL ID	00176	00177	00178	00179	00180	00181	00182	00183	00184	00185	00186	00187	00188	00189	00190	00191	00192	00193	00194	00195	00196	00197	00198	00199	00200	00201	00202	00203	00204	
Fat, Necrosis																													1	2.0
Pancreas Necrosis	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49	1 2.0
Salivary Glands	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Stomach, Forestomach Hyperplasia, Squamous Ulcer	+	+	+	+	+	+	+	+	+	+	+	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	47	1 4.0 1 2.0	
Stomach, Glandular	+	+	+	+	+	+	+	+	+	+	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	45		
Tooth Dysplasia	+	+	+	+			+	+			+	+		+	+	+	+	+		+	+	+	+	+	+	+	+	41	41	
	X	X	X	X			X	X			X	X		X	X	X	X	X		X	X	X	X	X	X	X	X			

**CARDIOVASCULAR SYSTEM**

Heart Cardiomyopathy Mineralization Artery, Inflammation, Chronic Active	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	4 1.3 1 1.0 2 3.0

**ENDOCRINE SYSTEM**

Adrenal Cortex Hyperplasia Hypertrophy	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	48	5 2.2 17 1.9
Adrenal Medulla	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	48	

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 1-4 .. Lesion qualified as:  
 1) Minimal 3) Moderate  
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TDMS No. 20009 - 04  
 Test Type: CHRONIC  
 Route: DOSED WATER  
 Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL  
 beta-Picoline  
 CAS Number: 108-99-6

Date Report Requested: 05/27/2011  
 Time Report Requested: 09:52:36  
 First Dose M/F: 11/09/04 / 11/08/04  
 Lab: BAT

B6C3F1 MICE MALE 1250 mg/l	DAY ON TEST																								* TOTALS					
	0732	0733	0734	0735	0736	0737	0738	0739	0740	0741	0742	0743	0744	0745	0746	0747	0748	0749	0750	0751	0752	0753	0754	0755		0756	0757	0758	0759	0760
ANIMAL ID		001766	001767	001768	001769	001770	001771	001772	001773	001774	001775	001776	001777	001778	001779	001780	001781	001782	001783	001784	001785	001786	001787	001788	001789	001790	001791	001792	001793	001794
		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49
		+	M	+	+	+	+	+	+	M	+	M	M	M	+	+	+	M	M	+	M	+	+	+	+	+	+	+	31	
		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49	
		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49	

**GENERAL BODY SYSTEM**

NONE

**GENITAL SYSTEM**

Epididymis	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49	
Granuloma Sperm Mineralization								1										2											2 1.5
																													1 2.0
Preputial Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Cyst																													1 3.0
Inflammation, Chronic Active	1																												1 1.0
Prostate	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Inflammation, Suppurative																													1 2.0
Seminal Vesicle	+	+	+	+	+	+	+	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	47	
Amyloid Deposition																													1 3.0
Inflammation, Chronic Active																													2 2.5
Testes	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	

\* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

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1-4 .. Lesion qualified as:

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TDMS No. 20009 - 04  
 Test Type: CHRONIC  
 Route: DOSED WATER  
 Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

beta-Picoline  
 CAS Number: 108-99-6

Date Report Requested: 05/27/2011  
 Time Report Requested: 09:52:36  
 First Dose M/F: 11/09/04 / 11/08/04  
 Lab: BAT

B6C3F1 MICE MALE	DAY ON TEST		ANIMAL ID																								* TOTALS											
	0732	0734	0733	0733	0733	0732	0731	0732	0735	0730	0731	0733	0739	0733	0733	0733	0731	0732	0734	0732	0737	0733	0733	0733	0731	0732		0731	0733									
<b>1250 mg/l</b>	0736	0737	0738	0739	0730	0731	0732	0733	0734	0735	0736	0737	0738	0739	0730	0731	0732	0733	0734	0735	0736	0737	0738	0739	0730	0731	0732	0733	0734	0735	0736	0737	0738	0739				
Mineralization																																				1	2.0	
<b>HEMATOPOIETIC SYSTEM</b>																																						
Bone Marrow	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50		
Lymph Node																									+	2												
Lymph Node, Mandibular	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50		
Lymph Node, Mesenteric Hyperplasia, Lymphoid	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	M	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	45	1	4.0
Spleen	+	A	+	+	+	+	+	+	+	+	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	46			
Thymus	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	47		
<b>INTEGUMENTARY SYSTEM</b>																																						
Mammary Gland	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	0		
Skin	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
<b>MUSCULOSKELETAL SYSTEM</b>																																						
Bone	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50		
<b>NERVOUS SYSTEM</b>																																						
Brain	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50		

\* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade  
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 2) Mild 4) Marked

TDMS No. 20009 - 04  
 Test Type: CHRONIC  
 Route: DOSED WATER  
 Species/Strain: MICE/B6C3F1

**P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL**  
 beta-Picoline  
 CAS Number: 108-99-6

Date Report Requested: 05/27/2011  
 Time Report Requested: 09:52:36  
 First Dose M/F: 11/09/04 / 11/08/04  
 Lab: BAT

<b>B6C3F1 MICE MALE</b>	DAY ON TEST	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	<b>* TOTALS</b>		
		7	7	7	7	7	7	7	7	7	4	7	7	3	7	7	7	7	7	5	7	7	7	7		7	
		3	1	2	3	3	3	3	3	3	2	3	3	9	3	3	3	3	3	3	1	3	3	3		3	
<b>1250 mg/l</b>	ANIMAL ID	2	3	4	0	0	0	2	1	2	5	0	1	9	1	0	0	1	2	4	2	7	2	1	<b>* TOTALS</b>		
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	
		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2			
		7	7	7	7	8	8	8	8	8	8	8	8	8	9	9	9	9	9	9	9	9	9	0			
		6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	

### RESPIRATORY SYSTEM

Lung	+																							50		
Thrombosis																								2	1.0	
Alveolar Epithelium, Hyperplasia																	1		7	1.7						
Alveolus, Infiltration Cellular, Histiocyte																	3	2	2	2.5						
Nose	+																							50		
Inflammation, Suppurative												2		6	1.7											
Olfactory Epithelium, Atrophy											2	1	7	1.6												
Olfactory Epithelium, Metaplasia, Respiratory	2	2	2	2		2	2	1	1	1	2	1	2	1	2	2	2	3		2	2	2	2	2	41	1.7
Respiratory Epithelium, Hyperplasia				2												3	3	3	2	1	17	1.6				
Pleura																								1		
Trachea	+																							49		

### SPECIAL SENSES SYSTEM

Eye	+																							40	
Degeneration	A																		4		1	4.0			
Inflammation, Suppurative																		3		1	3.0				
Harderian Gland	+																							47	
Hyperplasia	A																	2	1	4	1.5				

### URINARY SYSTEM

Kidney	+																							49	
Hydronephrosis																								2	2.5
Inflammation, Suppurative																								1	3.0

\* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked



TDMS No. 20009 - 04  
 Test Type: CHRONIC  
 Route: DOSED WATER  
 Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

beta-Picoline  
 CAS Number: 108-99-6

Date Report Requested: 05/27/2011  
 Time Report Requested: 09:52:36  
 First Dose M/F: 11/09/04 / 11/08/04  
 Lab: BAT

B6C3F1 MICE MALE 1250 mg/l	DAY ON TEST	ANIMAL ID																							* TOTALS	
		0732	0733	0734	0735	0736	0737	0738	0739	0740	0741	0742	0743	0744	0745	0746	0747	0748	0749	0750	0751	0752	0753	0754		0755
Metaplasia, Osseous		1				1																		1	4 1.0	
Mineralization																										1 2.0
Nephropathy		3	2	2	2	2	1	1	2	2	1	2	1	1	1	2	2	2	2	2	2	4	1	2	2	49 2.1
Papilla, Necrosis															3											2 3.0
Renal Tubule, Pigmentation																										1 3.0
Urethra Inflammation, Suppurative																										3 1 2.0
Urinary Bladder		+	+	+	+	+	+	+	+	+	+	+	+	A	+	+	+	+	+	+	+	+	+	+	+	46

\*\*\* END OF MALE DATA \*\*\*

\* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade  
 + .. Tissue examined microscopically  
 X .. Lesion present  
 I .. Insufficient tissue  
 M .. Missing tissue  
 A .. Autolysis precludes evaluation  
 BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:  
 1) Minimal 3) Moderate  
 2) Mild 4) Marked

<b>B6C3F1 MICE FEMALE</b>	<b>DAY ON TEST</b>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		7	7	3	6	7	6	6	7	7	7	7	7	3	7	7	7	7	6	7	7	6	7	6	7	7
		3	3	7	8	2	7	9	3	2	3	3	2	3	4	3	2	3	3	6	2	3	3	6	3	2
<b>0 mg/l</b>	<b>ANIMAL ID</b>	1	1	2	0	9	4	8	1	9	0	1	6	1	7	0	9	0	1	8	9	0	0	9	2	
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
																								<b>females</b> (cont...)		

**ALIMENTARY SYSTEM**

Esophagus	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Gallbladder	+	+	A	+	+	A	+	+	+	+	+	A	+	A	+	+	+	+	+	+	+	+	+	+	+
Intestine Large, Cecum	+	+	A	+	+	A	+	+	+	+	+	+	+	A	+	+	+	+	+	+	+	+	+	+	+
Intestine Large, Colon	+	+	A	+	+	A	+	+	+	+	+	+	+	A	+	+	+	+	+	+	+	+	+	+	+
Intestine Large, Rectum	+	+	A	+	+	A	+	+	+	+	+	A	+	A	+	+	+	+	+	+	+	+	+	+	+
Intestine Small, Duodenum	+	+	A	+	+	A	A	+	+	+	+	A	+	A	+	+	+	+	+	+	+	+	+	+	+
Intestine Small, Ileum	+	+	A	+	+	A	+	+	+	+	+	+	+	A	+	+	+	+	+	+	+	+	+	+	+
Intestine Small, Jejunum	+	+	A	+	+	A	+	+	+	+	+	A	+	A	+	+	+	+	+	+	+	+	+	+	+
Liver	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Angiectasis										3															
Basophilic Focus	X																								
Clear Cell Focus											X						X								
Eosinophilic Focus											X						X	X				X			
Necrosis					4	4																			
Tension Lipidosis																									
Mesentery										+															+
Fat, Necrosis										2															2
Pancreas	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Atrophy															A										

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 BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:  
 1) Minimal 3) Moderate  
 2) Mild 4) Marked

TDMS No. 20009 - 04  
 Test Type: CHRONIC  
 Route: DOSED WATER  
 Species/Strain: MICE/B6C3F1

**P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL**  
 beta-Picoline  
 CAS Number: 108-99-6

Date Report Requested: 05/27/2011  
 Time Report Requested: 09:52:36  
 First Dose M/F: 11/09/04 / 11/08/04  
 Lab: BAT

B6C3F1 MICE FEMALE  0 mg/l	DAY ON TEST																									ANIMAL ID	females (cont...)
	0 7 3 1	0 7 3 1	0 3 7 2	0 6 8 0	0 7 2 9	0 6 7 4	0 6 9 8	0 7 3 1	0 7 2 9	0 7 3 0	0 7 3 1	0 7 2 6	0 7 3 1	0 3 4 7	0 7 3 0	0 7 2 9	0 7 3 1	0 6 6 8	0 7 2 9	0 3 3 0	0 7 3 9	0 6 6 1	0 7 3 9	0 7 2 9			
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0 0 2 0 1	2

Duct, Cyst

Salivary Glands  
Necrosis

Stomach, Forestomach

Stomach, Glandular  
Mineralization

**CARDIOVASCULAR SYSTEM**

Blood Vessel  
Mineralization

Heart  
Cardiomyopathy  
Inflammation, Suppurative  
Mineralization  
Thrombosis

**ENDOCRINE SYSTEM**

Adrenal Cortex  
Hyperplasia  
Hypertrophy

Adrenal Medulla

Islets, Pancreatic

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TDMS No. 20009 - 04  
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B6C3F1 MICE FEMALE 0 mg/l	DAY ON TEST	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	ANIMAL ID	females (cont...)		
	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3			4	5
		7	7	3	6	7	6	6	7	7	7	7	7	3	7	7	7	7	6	7	7	6	7	7	0			
		3	3	7	8	2	7	9	3	2	3	3	2	3	4	3	2	3	3	6	2	3	3	6	3	2		
		1	1	2	0	9	4	8	1	9	0	1	6	1	7	0	9	0	1	8	9	0	0	9	1	2		
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
		2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2		
		0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	2	2	2	2	2	2		
		1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5		

Parathyroid Gland	M	+	A	+	+	+	+	+	+	+	+	+	+	+	M	+	+	+	+	M	M	+	+	+	+	
Pituitary Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Pars Distalis, Angiectasis																								2		
Pars Distalis, Hyperplasia	2				2				2										2	2					2	
Thyroid Gland	+	+	A	+	+	+	+	+	+	+	+	+	+	A	+	+	+	+	+	+	+	+	+	+	+	
Follicular Cell, Hyperplasia																					2					

**GENERAL BODY SYSTEM**

NONE

**GENITAL SYSTEM**

Clitoral Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Ovary	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Cyst										2	2															
Uterus	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Thrombosis																										
Endometrium, Hyperplasia, Cystic					1		4	4		2	3	3	4		2	4	2	4	1		4	3		1	3	

**HEMATOPOIETIC SYSTEM**

Bone Marrow	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Lymph Node							+																	+		
Lumbar, Angiectasis																										
Mediastinal, Hyperplasia, Lymphoid							2																			

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TDMS No. 20009 - 04  
 Test Type: CHRONIC  
 Route: DOSED WATER  
 Species/Strain: MICE/B6C3F1

**P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL**  
 beta-Picoline  
 CAS Number: 108-99-6

Date Report Requested: 05/27/2011  
 Time Report Requested: 09:52:36  
 First Dose M/F: 11/09/04 / 11/08/04  
 Lab: BAT

B6C3F1 MICE FEMALE 0 mg/l	DAY ON TEST																									females (cont...)			
	0 7 3 1	0 7 3 1	0 7 3 2	0 6 8 0	0 7 2 9	0 6 7 4	0 6 9 8	0 7 3 1	0 7 2 9	0 7 3 0	0 7 3 1	0 7 3 6	0 7 2 1	0 7 3 7	0 7 2 3	0 7 3 4	0 7 2 0	0 7 3 3	0 7 3 6	0 7 3 9	0 6 6 1	0 7 3 3	0 6 6 9	0 7 3 1	0 7 2 2		0 7 3 4	0 7 2 5	
ANIMAL ID	0 2 0 1	0 0 2 0	0 0 2 0	0 0 2 0	0 0 2 0	0 0 2 0	0 0 2 0	0 0 2 0	0 0 2 0	0 0 2 0	0 0 2 0	0 0 2 0	0 0 2 0	0 0 2 0	0 0 2 0	0 0 2 0	0 0 2 0	0 0 2 0	0 0 2 0	0 0 2 0	0 0 2 0	0 0 2 0	0 0 2 0	0 0 2 0	0 0 2 0	0 0 2 0	0 0 2 0	0 0 2 0	
Pancreatic, Ectasia																													
Renal, Ectasia																													
Lymph Node, Mandibular	+	+	A	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Lymph Node, Mesenteric	+	+	A	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Spleen	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	
Hematopoietic Cell Proliferation						2	4	3																					
Thymus	+	+	A	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
<b>INTEGUMENTARY SYSTEM</b>																													
Mammary Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Hyperplasia																										2			
Skin	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
<b>MUSCULOSKELETAL SYSTEM</b>																													
Bone	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Skeletal Muscle																													
<b>NERVOUS SYSTEM</b>																													
Brain	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Peripheral Nerve						+																							

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TDMS No. 20009 - 04  
 Test Type: CHRONIC  
 Route: DOSED WATER  
 Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL  
 beta-Picoline  
 CAS Number: 108-99-6

Date Report Requested: 05/27/2011  
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 Lab: BAT

B6C3F1 MICE FEMALE	DAY ON TEST																									females (cont...)
	0 7 3 1	0 7 3 1	0 7 3 2	0 6 8 0	0 7 2 9	0 6 7 4	0 6 9 8	0 7 3 1	0 7 2 9	0 7 3 0	0 7 3 1	0 7 2 6	0 7 3 1	0 7 2 7	0 3 4 7	0 7 3 0	0 7 2 9	0 7 3 1	0 6 6 8	0 7 2 9	0 7 3 0	0 6 3 9	0 7 6 1	0 7 3 2		
0 mg/l	ANIMAL ID																									
	0 0 2 0 1	0 0 2 0 2	0 0 2 0 3	0 0 2 0 4	0 0 2 0 5	0 0 2 0 6	0 0 2 0 7	0 0 2 0 8	0 0 2 0 9	0 0 2 1 0	0 0 2 1 1	0 0 2 1 2	0 0 2 1 3	0 0 2 1 4	0 0 2 1 5	0 0 2 1 6	0 0 2 1 7	0 0 2 1 8	0 0 2 1 9	0 0 2 2 0	0 0 2 2 1	0 0 2 2 2	0 0 2 2 3	0 0 2 2 4	0 0 2 2 5	

Spinal Cord +

**RESPIRATORY SYSTEM**

Lung	+ +																								
Mineralization																									
Alveolar Epithelium, Hyperplasia																									
Alveolus, Infiltration Cellular, Histiocyte																									
Nose	+ + A +																								
Inflammation, Suppurative	1																								
Olfactory Epithelium, Atrophy																									
Olfactory Epithelium, Metaplasia, Respiratory	1																								
Respiratory Epithelium, Hyperplasia	1 1 1																								
Trachea	+ + A + + + + + + + + + + + A + + + + + + + + + + +																								
Mineralization																									

**SPECIAL SENSES SYSTEM**

Eye	+ + A + + A A + + + + A + A + + + + + + + + + + +																								
Cataract																									
Degeneration	4																								
Cornea, Inflammation, Acute																									
Harderian Gland	+ + A + + A + + + + + + + A + + + + + + + + + + +																								
Hyperplasia	2 2 2																								

**URINARY SYSTEM**

Kidney	+ + A +																								
--------	---	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

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TDMS No. 20009 - 04  
 Test Type: CHRONIC  
 Route: DOSED WATER  
 Species/Strain: MICE/B6C3F1

**P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL**  
 beta-Picoline  
 CAS Number: 108-99-6

Date Report Requested: 05/27/2011  
 Time Report Requested: 09:52:36  
 First Dose M/F: 11/09/04 / 11/08/04  
 Lab: BAT

B6C3F1 MICE FEMALE 0 mg/l	DAY ON TEST	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	ANIMAL ID	females (cont...)
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Amyloid Deposition	7	7	3	6	7	6	6	7	7	7	7	7	7	3	7	7	7	7	6	7	7	6	7	7	6	7	7			
Inflammation, Suppurative	3	3	7	8	2	7	9	3	2	3	3	2	3	4	3	2	3	3	6	2	3	3	6	3	6	3	2			
Mineralization	1	1	2	0	9	4	8	1	9	0	1	6	1	7	0	9	0	1	8	9	0	0	9	1	9	1	9			
Nephropathy	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
Renal Tubule, Necrosis	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2			
Urinary Bladder	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2	2			
	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5					

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<b>B6C3F1 MICE FEMALE</b>	DAY ON TEST	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
		6	6	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	5	6	7	7	7	7		
		4	8	3	2	2	3	2	3	2	3	2	3	3	3	2	3	3	2	3	9	3	2	3	3		2
<b>0 mg/l</b>	ANIMAL ID	3	2	1	9	9	1	9	0	0	0	9	1	1	0	9	0	1	9	1	8	9	9	9	9	<b>* TOTALS</b>	
0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
0		0	0	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2		
		2	2	2	2	3	3	3	3	3	3	3	3	3	3	4	4	4	4	4	4	4	4	4	5		
		6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	

**ALIMENTARY SYSTEM**

Esophagus	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Gallbladder	A	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	A	+	+	+	+	43
Intestine Large, Cecum	A	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	A	+	+	+	+	44
Intestine Large, Colon	A	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	A	+	+	+	+	44
Intestine Large, Rectum	A	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	A	+	+	+	+	43
Intestine Small, Duodenum	A	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	A	+	+	+	+	42
Intestine Small, Ileum	A	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	A	+	+	+	+	44
Intestine Small, Jejunum	A	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	A	+	+	+	+	43
Liver	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49
Angiectasis											3					4									3 3.3
Basophilic Focus						X									X			X							4
Clear Cell Focus																			X						3
Eosinophilic Focus			X		X		X				X			X		X		X							11
Necrosis															1								2		4 2.8
Tension Lipidosis										2															1 2.0
Mesentery	+						+		+																8
Fat, Necrosis	2						2		2									2	2						7 2.0
Pancreas	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	48
Atrophy															4			2							2 3.0

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TDMS No. 20009 - 04  
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 beta-Picoline  
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 Lab: BAT

B6C3F1 MICE FEMALE	DAY ON TEST																								* TOTALS		
	0643	0648	0673	0672	0677	0677	0677	0677	0677	0677	0677	0677	0677	0677	0677	0677	0677	0677	0677	0677	0677	0677	0677				
0 mg/l	ANIMAL ID																								* TOTALS		
	002226	000222	000222	000222	000222	000222	000222	000222	000222	000222	000222	000222	000222	000222	000222	000222	000222	000222	000222	000222	000222	000222	000222				
Duct, Cyst																								4	1 4.0		
Salivary Glands Necrosis	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	1 4.0		
Stomach, Forestomach	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	47			
Stomach, Glandular Mineralization	A	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	45	2 2.0		
<b>CARDIOVASCULAR SYSTEM</b>																											
Blood Vessel Mineralization																										2	
Heart	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50			
Cardiomyopathy																										4 1.0	
Inflammation, Suppurative																										1 3.0	
Mineralization																										1 3.0	
Thrombosis																										2 3.0	
<b>ENDOCRINE SYSTEM</b>																											
Adrenal Cortex	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49			
Hyperplasia																										2 2.0	
Hypertrophy																										1 3.0	
Adrenal Medulla	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49			
Islets, Pancreatic	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	48			

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TDMS No. 20009 - 04  
 Test Type: CHRONIC  
 Route: DOSED WATER  
 Species/Strain: MICE/B6C3F1

**P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL**  
 beta-Picoline  
 CAS Number: 108-99-6

Date Report Requested: 05/27/2011  
 Time Report Requested: 09:52:36  
 First Dose M/F: 11/09/04 / 11/08/04  
 Lab: BAT

B6C3F1 MICE FEMALE	DAY ON TEST																								* TOTALS		
	0643	0682	0731	0779	0779	0779	0779	0779	0779	0779	0779	0779	0779	0779	0779	0779	0779	0779	0779	0779	0779	0779	0779	0779			
0 mg/l	ANIMAL ID																										
	0022	0022	0022	0022	0033	0033	0033	0033	0033	0033	0033	0033	0033	0033	0033	0033	0033	0033	0033	0033	0033	0033	0033	0033			
Parathyroid Gland	+	+	+	+	+	M	M	+	+	M	+	+	+	+	M	+	M	M	+	+	M	+	+	+	+	38	
Pituitary Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Pars Distalis, Angiectasis													4	1												3 2.3	
Pars Distalis, Hyperplasia										2												2				8 2.0	
Thyroid Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	48	
Follicular Cell, Hyperplasia																										1 2.0	
<b>GENERAL BODY SYSTEM</b>																											
NONE																											
<b>GENITAL SYSTEM</b>																											
Clitoral Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Ovary	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49	
Cyst										2								3					2			5 2.2	
Uterus	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49	
Thrombosis			3																							1 3.0	
Endometrium, Hyperplasia, Cystic				1	3		4	3	4	4	3		4	4	4	4	4	4		4		3		4	4	33 3.2	
<b>HEMATOPOIETIC SYSTEM</b>																											
Bone Marrow	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49	
Lymph Node							+								+							+	+			6	
Lumbar, Angiectasis							3																			1 3.0	
Mediastinal, Hyperplasia, Lymphoid																										1 2.0	

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 + .. Tissue examined microscopically  
 X .. Lesion present  
 I .. Insufficient tissue  
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 A .. Autolysis precludes evaluation  
 BLANK .. Not examined microscopically  
 1-4 .. Lesion qualified as:  
 1) Minimal 3) Moderate  
 2) Mild 4) Marked

TDMS No. 20009 - 04  
 Test Type: CHRONIC  
 Route: DOSED WATER  
 Species/Strain: MICE/B6C3F1

**P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL**  
 beta-Picoline  
 CAS Number: 108-99-6

Date Report Requested: 05/27/2011  
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 First Dose M/F: 11/09/04 / 11/08/04  
 Lab: BAT

B6C3F1 MICE FEMALE	DAY ON TEST	ANIMAL ID																								* TOTALS
		0643	0682	0673	0672	0677	0677	0677	0677	0677	0677	0677	0677	0677	0677	0677	0677	0677	0677	0677	0677	0677	0677	0677	0677	
		0433	0482	0431	0429	0429	0431	0429	0429	0429	0429	0429	0429	0429	0429	0429	0429	0429	0429	0429	0429	0429	0429	0429	0429	
0 mg/l	0643	0682	0673	0672	0677	0677	0677	0677	0677	0677	0677	0677	0677	0677	0677	0677	0677	0677	0677	0677	0677	0677	0677	0677		
	0433	0482	0431	0429	0429	0431	0429	0429	0429	0429	0429	0429	0429	0429	0429	0429	0429	0429	0429	0429	0429	0429	0429	0429		
	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000		
	0222	0222	0222	0222	0222	0222	0222	0222	0222	0222	0222	0222	0222	0222	0222	0222	0222	0222	0222	0222	0222	0222	0222	0222		
	0222	0222	0222	0233	0233	0233	0233	0233	0233	0233	0233	0233	0233	0233	0233	0233	0233	0233	0233	0233	0233	0233	0233	0233		
	0667	0678	0689	0690	0691	0692	0693	0694	0695	0696	0697	0698	0699	0690	0691	0692	0693	0694	0695	0696	0697	0698	0699	0690		
Pancreatic, Ectasia																	4								1 4.0	
Renal, Ectasia																			4						1 4.0	
Lymph Node, Mandibular	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	48	
Lymph Node, Mesenteric	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	A	+	+	+	46	
Spleen	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	A	+	+	+	46	
Hematopoietic Cell Proliferation		2																							4 2.8	
Thymus	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	M	+	+	+	M	A	+	+	+	45	
<b>INTEGUMENTARY SYSTEM</b>																										
Mammary Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Hyperplasia																									1 2.0	
Skin	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
<b>MUSCULOSKELETAL SYSTEM</b>																										
Bone	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Skeletal Muscle																							+		1	
<b>NERVOUS SYSTEM</b>																										
Brain	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Peripheral Nerve																									1	

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TDMS No. 20009 - 04  
 Test Type: CHRONIC  
 Route: DOSED WATER  
 Species/Strain: MICE/B6C3F1

**P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL**  
 beta-Picoline  
 CAS Number: 108-99-6

Date Report Requested: 05/27/2011  
 Time Report Requested: 09:52:36  
 First Dose M/F: 11/09/04 / 11/08/04  
 Lab: BAT

B6C3F1 MICE FEMALE	DAY ON TEST	ANIMAL ID																				* TOTALS				
		0643	0682	0731	0772	0773	0777	0777	0777	0777	0777	0777	0777	0777	0777	0777	0777	0777	0777	0777	0777		0777	0777		
0 mg/l		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
		2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2			
		2	2	2	2	3	3	3	3	3	3	3	3	3	3	3	4	4	4	4	4	4	4			
		6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7			
Amyloid Deposition																						3	1 3.0			
Inflammation, Suppurative			2																				1 2.0			
Mineralization																			3			1	3 2.0			
Nephropathy		2	3	1		1	1	1		1				1			1		3		1	4	1	29 1.4		
Renal Tubule, Necrosis			2																3					2 2.5		
Urinary Bladder		A	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	A	+	+	+	+	44

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 Lab: BAT

	DAY ON TEST																									
<b>B6C3F1 MICE FEMALE</b>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	<b>females (cont...)</b>		
	7	6	5	7	5	7	7	7	7	7	7	6	7	5	7	7	6	7	7	7	7	7	7			
	2	8	8	2	0	3	2	3	3	2	3	3	9	2	5	1	3	8	3	2	3	0	2		2	3
<b>312.5 mg/l</b>	9	5	8	9	8	0	9	0	0	9	0	0	9	3	1	1	0	0	9	0	0	9	0	0	<b>females (cont...)</b>	
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2		
	5	5	5	5	5	5	5	5	5	6	6	6	6	6	6	6	6	6	7	7	7	7	7	7		
	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	

**ALIMENTARY SYSTEM**

Esophagus	+	+	+	+	+	+	+	+	+	+	+	+	+	+	M	+	+	+	+	+	+	+	+	+	+
Gallbladder	+	A	A	+	A	+	+	+	+	+	+	A	+	A	+	+	A	+	+	+	+	+	+	M	+
Intestine Large, Cecum	+	A	A	+	A	+	+	+	+	+	+	A	+	A	A	+	A	+	+	+	A	+	+	+	
Intestine Large, Colon	+	A	A	+	A	+	+	+	+	+	+	A	+	A	A	+	A	+	+	+	A	+	+	+	
Intestine Large, Rectum	+	A	A	+	A	+	+	+	+	+	+	A	+	A	A	+	A	+	+	+	A	+	+	+	
Intestine Small, Duodenum	+	A	A	+	A	+	+	+	+	+	+	A	+	A	A	+	A	+	+	+	A	+	+	+	
Intestine Small, Ileum	+	A	A	+	A	+	+	+	+	+	+	A	+	A	A	+	A	+	+	+	A	+	+	+	
Intestine Small, Jejunum	+	A	A	+	A	+	+	+	+	+	+	A	+	A	A	+	A	+	+	+	A	+	+	+	
Inflammation, Granulomatous																									
Liver	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Angiectasis																									
Basophilic Focus				3															3				3		
Clear Cell Focus										X													X		
Eosinophilic Focus											X							X			X				
Fatty Change															2										
Hematopoietic Cell Proliferation				1																					
Necrosis				3																					
Tension Lipidosis										2															
Thrombosis																							3		
Mesentery	+						+					+							+			+	+		

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TDMS No. 20009 - 04

Test Type: CHRONIC

Route: DOSED WATER

Species/Strain: MICE/B6C3F1

**P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL**

beta-Picoline

CAS Number: 108-99-6

Date Report Requested: 05/27/2011

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First Dose M/F: 11/09/04 / 11/08/04

Lab: BAT

<b>B6C3F1 MICE FEMALE</b>	DAY ON TEST	07 29	06 85	05 88	07 20	05 33	07 72	07 73	07 73	07 73	07 69	07 73	06 92	07 53	07 11	07 73	06 68	07 33	07 30	07 72	07 72	07 79	07 73	07 73	07 73		<b>females (cont...)</b>	
	<b>312.5 mg/l</b>	00 25 11	00 25 11	00 25 11	00 25 11	00 25 11	00 25 11	00 25 11	00 25 11	00 25 11	00 25 11	00 25 11	00 25 11	00 25 11	00 25 11	00 25 11	00 25 11	00 25 11	00 25 11	00 25 11	00 25 11	00 25 11	00 25 11	00 25 11	00 25 11	00 25 11		
	ANIMAL ID	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5		
	Fat, Hemorrhage	4																										
Fat, Necrosis						2				2								2										
Pancreas	+	+	+	+	A	+	+	+	+	+	+	+	+	+	A	+	A	+	+	+	+	+	+	+	+	+		
Thrombosis	4																											
Duct, Cyst																				2								
Salivary Glands	+	+	+	+	+	+	+	+	+	+	+	+	+	+	M	+	M	+	+	+	+	+	+	+	+	+		
Stomach, Forestomach	+	A	+	+	+	+	+	+	+	+	+	+	+	+	A	+	+	+	+	+	+	+	+	+	+	+		
Hyperplasia, Squamous																												
Ulcer																										2		
Stomach, Glandular	+	A	+	+	A	+	+	+	+	+	+	+	+	+	A	A	+	A	+	+	+	+	+	+	+	+		
Hyperplasia																												
Mineralization																											2	
Tooth																											M	

**CARDIOVASCULAR SYSTEM**

Blood Vessel																															
Mineralization																															
Heart	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+				
Cardiomyopathy																															
Inflammation, Suppurative																															
Mineralization						2																									
Necrosis																															
Thrombosis																2															

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TDMS No. 20009 - 04  
 Test Type: CHRONIC  
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**P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL**  
 beta-Picoline  
 CAS Number: 108-99-6

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<b>B6C3F1 MICE FEMALE</b>  <b>312.5 mg/l</b>	DAY ON TEST	0729	0685	0588	0720	0733	0730	0733	0730	0733	0733	0679	0752	0771	0773	0676	0737	0777	0770	0723	0730	0722	0729	0730	0733	0730
	ANIMAL ID	0051	0052	0053	0054	0055	0056	0057	0058	0059	0060	0061	0062	0063	0064	0065	0066	0067	0068	0069	0070	0071	0072	0073	0074	0075

females  
(cont...)

Capillary, Hyperplasia 2

**ENDOCRINE SYSTEM**

Adrenal Cortex Hypertrophy	+	+	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
																											3
Adrenal Medulla Hyperplasia	+	+	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
																											1
Islets, Pancreatic	+	+	+	+	A	+	+	+	+	+	+	+	+	+	A	+	A	+	+	+	+	A	+	+	+	+	
Parathyroid Gland	+	+	+	+	+	+	+	+	+	+	M	+	M	+	M	+	M	+	+	+	+	+	M	M	+	+	
Pituitary Gland Pars Distalis, Angiectasis	+	+	+	+	+	+	+	+	+	+	+	+	+	+	A	M	+	+	+	+	+	+	+	+	+	M	
Pars Distalis, Hyperplasia						2	3				2			1												3	
Thyroid Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	M	+	M	+	+	+	+	+	+	+	+	+	

**GENERAL BODY SYSTEM**

NONE

**GENITAL SYSTEM**

Clitoral Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Ovary Cyst	+	+	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
																										3
																										4
Uterus	+	+	+	+	A	+	+	+	+	+	+	+	+	+	A	+	+	+	+	+	+	+	+	+	+	+

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<b>B6C3F1 MICE FEMALE</b>  <b>312.5 mg/l</b>	DAY ON TEST	0 7 2 9	0 6 8 5	0 5 8 8	0 7 2 9	0 5 0 8	0 7 3 0	0 7 2 9	0 7 3 0	0 7 3 0	0 7 3 0	0 7 3 0	0 6 9 7	0 7 2 9	0 5 5 3	0 7 1 1	0 7 3 0	0 6 8 3	0 7 2 3	0 7 3 0	0 7 7 0	0 7 7 9	0 7 2 9	0 7 7 3	0 7 2 9	0 7 7 0	0 7 7 3	0 7 7 0	
	ANIMAL ID	0 0 2 5 1	0 0 2 5 2	0 0 2 5 3	0 0 2 5 4	0 0 2 5 5	0 0 2 5 6	0 0 2 5 7	0 0 2 5 8	0 0 2 5 9	0 0 2 6 0	0 0 2 6 1	0 0 2 6 2	0 0 2 6 3	0 0 2 6 4	0 0 2 6 5	0 0 2 6 6	0 0 2 6 7	0 0 2 6 8	0 0 2 6 9	0 0 2 6 0	0 0 2 6 1	0 0 2 6 2	0 0 2 6 3	0 0 2 6 4	0 0 2 6 5	0 0 2 6 6	0 0 2 6 7	0 0 2 6 8

females  
(cont...)

Angiectasis  
 Endometrium, Hyperplasia, Cystic

2 3 4 1 3 2 4 3 2 4 1 4 3 4 4 2

**HEMATOPOIETIC SYSTEM**

Bone Marrow	+	+	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Lymph Node Mediastinal, Hyperplasia, Lymphoid Renal, Ectasia														+																
Lymph Node, Mandibular	+	A	+	+	+	+	+	+	+	+	+	+	+	+	M	+	A	+	+	+	+	A	+	+	+	+	+	+	+	
Lymph Node, Mesenteric	+	A	+	+	A	+	+	+	+	+	+	+	A	+	A	A	+	A	+	+	+	A	+	+	+	+	+	+	+	
Spleen Hematopoietic Cell Proliferation Thrombosis	+	+	+	+	A	+	+	+	+	+	+	+	A	+	+	A	+	A	+	+	+	+	+	+	+	+	+	+	+	
Thymus	+	+	+	+	A	+	+	+	+	+	+	+	+	+	M	+	A	+	+	+	+	+	+	+	+	+	+	+	+	

**INTEGUMENTARY SYSTEM**

Mammary Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	A	+	+	+		
Skin Hyperplasia, Squamous Inflammation, Chronic Active	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
																														4
																														4

**MUSCULOSKELETAL SYSTEM**

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 First Dose M/F: 11/09/04 / 11/08/04  
 Lab: BAT

<b>B6C3F1 MICE FEMALE</b>	DAY ON TEST	0 7	0 6	0 5	0 7	0 5	0 7	0 7	0 7	0 7	0 7	0 7	0 6	0 7	0 5	0 7	0 6	0 7	0 7	0 7	0 7	0 7	0 7	0 7	0 7	<b>females (cont...)</b>
	<b>312.5 mg/l</b>	2 9	8 5	8 8	2 9	0 8	3 0	2 9	3 0	3 0	2 9	3 0	3 0	9 7	2 9	5 3	1 1	3 1	8 0	3 0	2 9	3 0	2 9	2 3	3 0	
	ANIMAL ID	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	

Bone +

**NERVOUS SYSTEM**

Brain + + + + + + + + + + + + + + + M + + + + + + + +  
 Hemorrhage  
 Necrosis

**RESPIRATORY SYSTEM**

Lung +  
 Inflammation, Chronic Active 2  
 Mineralization 3 2  
 Alveolar Epithelium, Hyperplasia 3 2 3  
 Alveolus, Infiltration Cellular, Histiocyte

Nose + + + + A + + + + + + + + + M + + + + + + + + + +  
 Olfactory Epithelium, Atrophy 1 1  
 Olfactory Epithelium, Metaplasia, Respiratory  
 Respiratory Epithelium, Hyperplasia 1

Trachea + + A + + + + + + + + + + + M + A + + + A + + +  
 Mineralization 3

**SPECIAL SENSES SYSTEM**

Eye + A A + A + + + + + + + A + A M + A + + + A + + +  
 Cornea, Inflammation, Acute

Harderian Gland + A + + A + + + + + + + + + M + A + + + A + + +

\* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade  
 + .. Tissue examined microscopically M .. Missing tissue  
 X .. Lesion present A .. Autolysis precludes evaluation  
 I .. Insufficient tissue BLANK .. Not examined microscopically  
 1-4 .. Lesion qualified as:  
 1) Minimal 3) Moderate  
 2) Mild 4) Marked

TDMS No. 20009 - 04  
 Test Type: CHRONIC  
 Route: DOSED WATER  
 Species/Strain: MICE/B6C3F1

**P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL**  
 beta-Picoline  
 CAS Number: 108-99-6

Date Report Requested: 05/27/2011  
 Time Report Requested: 09:52:36  
 First Dose M/F: 11/09/04 / 11/08/04  
 Lab: BAT

<b>B6C3F1 MICE FEMALE</b>	DAY ON TEST	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	ANIMAL ID	7	6	5	7	5	7	7	7	7	7	7	6	7	5	7	7	6	7	7	7	7	7	7	7	7		7
<b>312.5 mg/l</b>		2	8	8	2	0	3	2	3	3	2	3	3	9	2	5	1	3	8	3	2	3	0	2	2	3	0	
		9	5	8	9	8	0	9	0	0	9	0	0	7	9	3	1	1	0	0	9	0	0	9	0	0	0	
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	<b>females (cont...)</b>
		2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
		5	5	5	5	5	5	5	5	5	6	6	6	6	6	6	6	6	6	7	7	7	7	7	7	7	7	
		1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	0	

Hyperplasia

1

3

**URINARY SYSTEM**

Kidney	+	+	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Amyloid Deposition												2														
Hydronephrosis																										
Metaplasia, Osseous					1																					
Mineralization																										2
Nephropathy				1	1		1		1		1		3		1				2		1					
Renal Tubule, Necrosis			3														3									
Urinary Bladder	+	A	A	+	A	+	+	+	+	+	+	+	A	+	A	A	+	A	+	+	+	+	A	+	+	+

\* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade  
 + .. Tissue examined microscopically  
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 I .. Insufficient tissue  
 M .. Missing tissue  
 A .. Autolysis precludes evaluation  
 BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:  
 1) Minimal 3) Moderate  
 2) Mild 4) Marked

TDMS No. 20009 - 04  
 Test Type: CHRONIC  
 Route: DOSED WATER  
 Species/Strain: MICE/B6C3F1

**P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL**  
 beta-Picoline  
 CAS Number: 108-99-6

Date Report Requested: 05/27/2011  
 Time Report Requested: 09:52:36  
 First Dose M/F: 11/09/04 / 11/08/04  
 Lab: BAT

B6C3F1 MICE FEMALE	DAY ON TEST																									* TOTALS
	04	07	07	03	07	06	06	07	07	07	07	07	07	07	07	07	07	07	05	07	07	07	06	07		
312.5 mg/l	94	30	31	82	30	28	72	39	30	11	29	33	30	04	81	31	33	24	30	33	29	62	73			
ANIMAL ID	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00			
	27	27	27	27	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28			
	67	78	78	89	00	01	02	03	04	05	06	07	08	09	00	01	02	03	04	05	06	07	08			

**ALIMENTARY SYSTEM**

Esophagus	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49
Gallbladder	A	+	+	A	+	A	A	+	+	+	A	+	+	+	+	A	+	+	+	+	+	+	A	+	36
Intestine Large, Cecum	A	+	+	A	+	+	A	+	+	+	A	+	+	+	+	A	+	+	+	+	+	+	A	+	36
Intestine Large, Colon	A	+	+	A	+	A	A	+	+	+	A	+	+	+	+	A	+	+	+	+	+	+	A	+	35
Intestine Large, Rectum	A	+	+	A	+	A	A	+	+	+	A	+	+	+	+	A	+	+	+	+	+	+	A	+	35
Intestine Small, Duodenum	A	+	+	A	+	A	A	+	+	+	A	+	+	+	+	A	+	+	+	+	+	+	A	+	35
Intestine Small, Ileum	A	+	+	A	+	+	A	+	+	+	A	+	+	+	+	A	+	+	+	+	+	+	A	+	36
Intestine Small, Jejunum	A	+	+	A	+	A	A	+	+	+	A	+	+	+	+	A	+	+	+	+	+	+	A	+	35
Inflammation, Granulomatous																							3		1 3.0
Liver	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Angiectasis																									3 3.0
Basophilic Focus												X													2
Clear Cell Focus		X																							2
Eosinophilic Focus		X	X		X	X			X								X						X		10
Fatty Change																3	2	4							4 2.8
Hematopoietic Cell Proliferation																									1 1.0
Necrosis																					3				2 3.0
Tension Lipidosis																									1 2.0
Thrombosis																									1 3.0
Mesentery					+	+	+			+				+					+	+	+	+	+	+	16

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+ .. Tissue examined microscopically

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TDMS No. 20009 - 04  
 Test Type: CHRONIC  
 Route: DOSED WATER  
 Species/Strain: MICE/B6C3F1

**P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL**  
 beta-Picoline  
 CAS Number: 108-99-6

Date Report Requested: 05/27/2011  
 Time Report Requested: 09:52:36  
 First Dose M/F: 11/09/04 / 11/08/04  
 Lab: BAT

B6C3F1 MICE FEMALE 312.5 mg/l	DAY ON TEST																								* TOTALS
	04	07	07	03	07	06	06	07	07	07	07	07	07	07	07	07	07	07	05	07	07	07	06	07	
ANIMAL ID	09	03	03	08	03	02	07	02	03	03	01	02	03	03	03	00	01	03	03	02	03	02	06	03	
	04	00	01	02	00	08	02	00	00	00	01	09	00	00	00	04	08	01	03	04	00	00	09	01	
	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	
	02	02	02	02	02	02	02	02	02	02	02	02	02	02	02	02	02	02	02	02	02	02	03		
	07	07	07	07	08	08	08	08	08	08	08	08	08	08	08	09	09	09	09	09	09	09	09	00	
	06	07	08	09	00	01	02	03	04	05	06	07	08	09	00	01	02	03	04	05	06	07	08	09	
Fat, Hemorrhage																								1	
Fat, Necrosis					2		2	2		2					2				2	2	2	2	2	2	
Pancreas	A	+	+	A	+	+	A	+	+	+	+	+	+	+	A	+	+	+	+	+	+	+	A	+	
Thrombosis																									
Duct, Cyst																									
Salivary Glands	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	M	+	
Stomach, Forestomach	+	+	+	A	+	A	A	+	+	+	A	+	+	+	+	A	+	+	+	+	+	+	+	+	
Hyperplasia, Squamous																									
Ulcer																									
Stomach, Glandular	A	+	+	A	+	A	A	+	+	+	A	+	+	+	+	A	+	+	+	+	+	+	+	+	
Hyperplasia																									
Mineralization																									
Tooth																									

**CARDIOVASCULAR SYSTEM**

Blood Vessel																								
Mineralization																								
Heart	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Cardiomyopathy																								
Inflammation, Suppurative																								
Mineralization																								
Necrosis																								
Thrombosis																								

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 + .. Tissue examined microscopically  
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TDMS No. 20009 - 04  
 Test Type: CHRONIC  
 Route: DOSED WATER  
 Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

beta-Picoline  
 CAS Number: 108-99-6

Date Report Requested: 05/27/2011  
 Time Report Requested: 09:52:36  
 First Dose M/F: 11/09/04 / 11/08/04  
 Lab: BAT

B6C3F1 MICE FEMALE	DAY ON TEST	0 0																								ANIMAL ID	* TOTALS
		4 7 7 3 7 6 6 7 7 7 7 7 7 7 7 7 7 7 7 7 5 7 7 7 6 7 9 3 3 8 3 2 7 2 3 3 1 2 3 3 3 0 1 3 3 2 3 3 2 6 6 3 4 0 1 2 0 8 2 9 0 0 1 9 0 0 0 4 8 1 3 4 0 0 9 2 2 1																									
312.5 mg/l		0 0																									
		0 0																									
		2 3																									
		7 7 7 7 8 8 8 8 8 8 8 8 8 8 8 9 9 9 9 9 9 9 9 9 9 0																									
		6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0																									

Capillary, Hyperplasia

1 2.0

ENDOCRINE SYSTEM

Adrenal Cortex  
 Hypertrophy

+ + + A + + + + + + A + + + + A + + + + + + + A +

45

1 3.0

Adrenal Medulla  
 Hyperplasia

+ + + A + + + + + + A + + + + A + + + + + + + A +

45

1 1.0

Islets, Pancreatic

A + + A + + A + + + + + + + + A + + + + + + + A +

41

Parathyroid Gland

M + M M + + + + + M + + + M M M + M M + + + + M +

34

Pituitary Gland  
 Pars Distalis, Angiectasis  
 Pars Distalis, Hyperplasia

+ M +

46

1 2.0

2 2 3 2 2 2 2 2 2 2 2

14 2.1

Thyroid Gland

+ + + M + + A + + + + + + + + + + + + + + + M +

45

GENERAL BODY SYSTEM

NONE

GENITAL SYSTEM

Clitoral Gland

+ +

50

Ovary  
 Cyst

+ + + A +

48

5 3.8

4

Uterus

+ + + A +

47

\* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

M .. Missing tissue

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|                                  |             |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |          |    |     |   |   |     |
|----------------------------------|-------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|----------|----|-----|---|---|-----|
| B6C3F1 MICE FEMALE               | DAY ON TEST | 0<br>4<br>9<br>4      | 0<br>7<br>3<br>0      | 0<br>7<br>3<br>1      | 0<br>3<br>8<br>2      | 0<br>7<br>3<br>0      | 0<br>6<br>2<br>8      | 0<br>6<br>7<br>2      | 0<br>7<br>2<br>9      | 0<br>7<br>3<br>0      | 0<br>7<br>3<br>0      | 0<br>7<br>3<br>1      | 0<br>7<br>3<br>1      | 0<br>7<br>3<br>0      | 0<br>7<br>3<br>0      | 0<br>7<br>3<br>0      | 0<br>7<br>3<br>0      | 0<br>5<br>2<br>4      | 0<br>7<br>3<br>0      | 0<br>7<br>3<br>0      | 0<br>7<br>2<br>9      | 0<br>6<br>6<br>2      | 0<br>7<br>3<br>1      | * TOTALS |    |     |   |   |     |
|                                  | ANIMAL ID   | 0<br>0<br>2<br>7<br>6 | 0<br>0<br>2<br>7<br>7 | 0<br>0<br>2<br>7<br>8 | 0<br>0<br>2<br>7<br>8 | 0<br>0<br>2<br>8<br>8 | 0<br>0<br>2<br>8<br>8 | 0<br>0<br>2<br>8<br>8 | 0<br>0<br>2<br>8<br>8 | 0<br>0<br>2<br>8<br>8 | 0<br>0<br>2<br>8<br>8 | 0<br>0<br>2<br>8<br>8 | 0<br>0<br>2<br>8<br>8 | 0<br>0<br>2<br>8<br>8 | 0<br>0<br>2<br>9<br>9 | 0<br>0<br>2<br>9<br>9 | 0<br>0<br>2<br>9<br>9 | 0<br>0<br>2<br>9<br>9 | 0<br>0<br>2<br>9<br>9 | 0<br>0<br>2<br>9<br>9 | 0<br>0<br>2<br>9<br>9 | 0<br>0<br>2<br>9<br>9 | 0<br>0<br>2<br>9<br>9 |          |    |     |   |   |     |
| Angiectasis                      |             |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       | 4                     | 1                     | 4        | 3  | 4   | 3 | 1 | 4.0 |
| Endometrium, Hyperplasia, Cystic |             | 4                     | 3                     |                       | 4                     |                       | 4                     | 3                     | 4                     | 4                     |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |          | 29 | 3.1 |   |   |     |

HEMATOPOIETIC SYSTEM

|                                    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |     |
|------------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----|
| Bone Marrow                        | A | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | 46  |
| Lymph Node                         |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 8 |     |
| Mediastinal, Hyperplasia, Lymphoid |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 | 2.0 |
| Renal, Ectasia                     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 | 3.0 |
| Lymph Node, Mandibular             | A | + | M | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | M | + | 42  |
| Lymph Node, Mesenteric             | A | + | + | A | + | + | A | + | + | + | A | + | + | + | A | + | + | + | + | + | + | + | + | + | 38  |
| Spleen                             | A | + | + | A | + | A | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | 42  |
| Hematopoietic Cell Proliferation   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 3 | 3.3 |
| Thrombosis                         |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 | 3.0 |
| Thymus                             | + | + | + | + | + | + | M | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + | A | + | 44  |

INTEGUMENTARY SYSTEM

|                              |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |     |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----|
| Mammary Gland                | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49  |
| Skin                         | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50  |
| Hyperplasia, Squamous        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 | 4.0 |
| Inflammation, Chronic Active |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 2 | 4.0 |

MUSCULOSKELETAL SYSTEM

\* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade  
+ .. Tissue examined microscopically  
X .. Lesion present  
I .. Insufficient tissue  
M .. Missing tissue  
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TDMS No. 20009 - 04  
 Test Type: CHRONIC  
 Route: DOSED WATER  
 Species/Strain: MICE/B6C3F1

**P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL**  
 beta-Picoline  
 CAS Number: 108-99-6

Date Report Requested: 05/27/2011  
 Time Report Requested: 09:52:36  
 First Dose M/F: 11/09/04 / 11/08/04  
 Lab: BAT

| B6C3F1 MICE FEMALE<br>312.5 mg/l              | DAY ON TEST |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    | * TOTALS |  |
|---|-------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----------|--|
|   | 04          | 07 | 07 | 03 | 07 | 06 | 06 | 07 | 07 | 07 | 07 | 07 | 07 | 07 | 07 | 07 | 07 | 07 | 05 | 07 | 07 | 07 | 06 | 07 |          |  |
| ANIMAL ID                                     | 09          | 03 | 03 | 08 | 03 | 02 | 07 | 02 | 03 | 03 | 01 | 02 | 03 | 03 | 03 | 00 | 01 | 03 | 03 | 02 | 03 | 02 | 06 | 03 |          |  |
|   | 04          | 00 | 01 | 02 | 00 | 08 | 02 | 09 | 00 | 00 | 01 | 09 | 00 | 00 | 00 | 04 | 08 | 01 | 03 | 04 | 00 | 00 | 09 | 02 |          |  |
| Bone  | +           | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | 50 |          |  |
| <b>NERVOUS SYSTEM</b>                         |             |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |          |  |
| Brain   | +           | +  | +  | A  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | M  | +  | 47       |  |
| Hemorrhage                                    |             |    |    |    |    |    |    |    |    |    |    |    |    |    | 2  |    |    |    |    |    |    |    |    |    | 1 2.0    |  |
| Necrosis                                      |             |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    | 1  |    |    | 1 1.0    |  |
| <b>RESPIRATORY SYSTEM</b>                     |             |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |          |  |
| Lung  | +           | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | 50 |          |  |
| Inflammation, Chronic Active                  |             |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    | 1 2.0    |  |
| Mineralization                                |             |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    | 4  |    |    | 3 3.0    |  |
| Alveolar Epithelium, Hyperplasia              |             |    | 2  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    | 4 2.5    |  |
| Alveolus, Infiltration Cellular, Histiocyte   |             |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    | 3  |    | 1 3.0    |  |
| Nose  | A           | +  | +  | A  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | A  | +  | +  | +  | +  | +  | +  | M  | +  | 44       |  |
| Olfactory Epithelium, Atrophy                 |             |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    | 2 1.0    |  |
| Olfactory Epithelium, Metaplasia, Respiratory |             |    |    |    |    |    |    |    | 1  |    |    |    |    |    |    |    |    |    | 1  |    |    |    |    |    | 2 1.0    |  |
| Respiratory Epithelium, Hyperplasia           |             |    |    |    |    |    |    |    |    |    | 1  |    |    |    |    |    |    |    |    |    |    |    |    |    | 2 1.0    |  |
| Trachea                                       | A           | +  | +  | A  | +  | +  | +  | +  | +  | +  | A  | +  | +  | +  | +  | A  | +  | +  | +  | +  | +  | +  | M  | +  | 41       |  |
| Mineralization                                |             |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    | 1 3.0    |  |
| <b>SPECIAL SENSES SYSTEM</b>                  |             |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |          |  |
| Eye   | A           | +  | +  | A  | +  | A  | A  | +  | +  | +  | A  | +  | +  | +  | +  | A  | +  | +  | +  | +  | +  | +  | M  | +  | 35       |  |
| Cornea, Inflammation, Acute                   |             |    |    |    |    |    |    |    |    |    |    |    |    |    |    | 2  |    |    |    |    |    |    |    |    | 1 2.0    |  |
| Harderian Gland                               | A           | +  | +  | +  | +  | +  | +  | +  | +  | +  | A  | +  | +  | +  | +  | A  | +  | +  | +  | +  | +  | +  | M  | +  | 41       |  |

\* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade  
 + .. Tissue examined microscopically  
 X .. Lesion present  
 I .. Insufficient tissue  
 M .. Missing tissue  
 A .. Autolysis precludes evaluation  
 BLANK .. Not examined microscopically  
 1-4 .. Lesion qualified as:  
 1) Minimal 3) Moderate  
 2) Mild 4) Marked



TDMS No. 20009 - 04  
 Test Type: CHRONIC  
 Route: DOSED WATER  
 Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

beta-Picoline  
 CAS Number: 108-99-6

Date Report Requested: 05/27/2011  
 Time Report Requested: 09:52:36  
 First Dose M/F: 11/09/04 / 11/08/04  
 Lab: BAT

|                           |             |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                 |
|---------------------------|-------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------|
| <b>B6C3F1 MICE FEMALE</b> | DAY ON TEST | 0<br>4                | 0<br>7                | 0<br>7                | 0<br>3                | 0<br>7                | 0<br>6                | 0<br>6                | 0<br>7                | 0<br>7                | 0<br>7                | 0<br>7                | 0<br>7                | 0<br>7                | 0<br>7                | 0<br>7                | 0<br>7                | 0<br>7                | 0<br>5                | 0<br>7                | 0<br>7                | 0<br>7                | 0<br>7                | 0<br>6                | 0<br>7                |                 |
|                           | ANIMAL ID   | 9<br>4                | 3<br>0                | 3<br>1                | 8<br>2                | 3<br>0                | 2<br>8                | 7<br>2                | 2<br>9                | 3<br>0                | 3<br>1                | 1<br>9                | 2<br>0                | 3<br>0                | 3<br>0                | 0<br>4                | 1<br>8                | 3<br>1                | 3<br>3                | 2<br>4                | 3<br>0                | 3<br>0                | 2<br>9                | 6<br>2                | 7<br>1                |                 |
| <b>312.5 mg/l</b>         |             | 0<br>0<br>2<br>7<br>6 | 0<br>0<br>2<br>7<br>7 | 0<br>0<br>2<br>7<br>8 | 0<br>0<br>2<br>7<br>8 | 0<br>0<br>2<br>8<br>8 | 0<br>0<br>2<br>8<br>8 | 0<br>0<br>2<br>8<br>8 | 0<br>0<br>2<br>8<br>8 | 0<br>0<br>2<br>8<br>8 | 0<br>0<br>2<br>8<br>8 | 0<br>0<br>2<br>8<br>8 | 0<br>0<br>2<br>8<br>8 | 0<br>0<br>2<br>8<br>9 | 0<br>0<br>2<br>8<br>9 | 0<br>0<br>2<br>9<br>1 | 0<br>0<br>2<br>9<br>2 | 0<br>0<br>2<br>9<br>3 | 0<br>0<br>2<br>9<br>4 | 0<br>0<br>2<br>9<br>5 | 0<br>0<br>2<br>9<br>6 | 0<br>0<br>2<br>9<br>7 | 0<br>0<br>2<br>9<br>8 | 0<br>0<br>2<br>9<br>9 | 0<br>0<br>3<br>0<br>0 | <b>* TOTALS</b> |

Hyperplasia 2 2.0

**URINARY SYSTEM**

|                        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |        |
|------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|--------|
| Kidney                 | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | +  | 47     |
| Amyloid Deposition     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 2 |   |   |   |   |   |   |    | 1 2.0  |
| Hydronephrosis         |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    | 1 2.0  |
| Metaplasia, Osseous    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 |   |   |   |   |   |    | 1 1.0  |
| Mineralization         |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 |   |   |   |   |   |   |    | 2 1.5  |
| Nephropathy            |   |   |   | 1 |   | 1 |   |   |   |   |   | 3 |   |   |   |   | 1 |   | 1 |   | 3 |   | 3 |   |   |    | 16 1.6 |
| Renal Tubule, Necrosis |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 2 |   |   |   |   |   |   |    | 3 2.7  |
| Urinary Bladder        | A | + | + | + | + | + | A | + | + | + | A | + | + | + | + | A | + | + | + | + | + | + | + | A | + | 37 |        |

\* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade  
 + .. Tissue examined microscopically  
 X .. Lesion present  
 I .. Insufficient tissue  
 M .. Missing tissue  
 A .. Autolysis precludes evaluation  
 BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:  
 1) Minimal 3) Moderate  
 2) Mild 4) Marked



TDMS No. 20009 - 04  
 Test Type: CHRONIC  
 Route: DOSED WATER  
 Species/Strain: MICE/B6C3F1

**P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL**  
 beta-Picoline  
 CAS Number: 108-99-6

Date Report Requested: 05/27/2011  
 Time Report Requested: 09:52:36  
 First Dose M/F: 11/09/04 / 11/08/04  
 Lab: BAT

| B6C3F1 MICE FEMALE<br>625 mg/l                         | DAY ON TEST      |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  | ANIMAL ID | females<br>(cont...) |                  |   |        |
|--|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|-----------|----------------------|------------------|---|--------|
|  | 0<br>7<br>2<br>9 | 0<br>7<br>3<br>1 | 0<br>7<br>0<br>4 | 0<br>7<br>0<br>4 | 0<br>7<br>3<br>1 | 0<br>7<br>2<br>9 | 0<br>7<br>3<br>0 | 0<br>7<br>2<br>9 | 0<br>7<br>3<br>2 | 0<br>7<br>2<br>9 | 0<br>7<br>3<br>3 | 0<br>7<br>2<br>9 | 0<br>7<br>3<br>1 | 0<br>7<br>3<br>2 | 0<br>7<br>3<br>3 | 0<br>7<br>3<br>1 | 0<br>7<br>3<br>2 | 0<br>7<br>3<br>3 | 0<br>7<br>3<br>1 | 0<br>7<br>3<br>2 |           |                      | 0<br>7<br>3<br>3 |   |        |
| Fat, Necrosis  |                  |                  |                  |                  | 2                |                  | 2                |                  |                  | 2                |                  | 2                | 2                |                  |                  |                  | 2                |                  |                  |                  | 2         |                      | 2                |   |        |
| Pancreas<br>Atrophy                                    | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | A         | +                    | +                | + |        |
| Salivary Glands  | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +         | +                    | +                |   |        |
| Stomach, Forestomach<br>Hyperplasia, Squamous<br>Ulcer | +                | +                | +                | +                | +                | +                | +                | A                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +         | A                    | +                | + | 2<br>3 |
| Stomach, Glandular<br>Dysplasia<br>Mineralization      | +                | +                | A                | +                | +                | +                | +                | A                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | A         | A                    | +                | + | 2      |
| Tooth<br>Dysplasia                                     |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |           |                      |                  |   |        |

**CARDIOVASCULAR SYSTEM**

|   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |       |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-------|
| Blood Vessel<br>Mineralization            |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |       |
| Heart<br>Cardiomyopathy<br>Mineralization | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 1 1 1 |

**ENDOCRINE SYSTEM**

|   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|
| Adrenal Cortex<br>Vacuolization Cytoplasmic | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |  |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|

\* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade  
 + .. Tissue examined microscopically  
 X .. Lesion present  
 I .. Insufficient tissue  
 M .. Missing tissue  
 A .. Autolysis precludes evaluation  
 BLANK .. Not examined microscopically  
 1-4 .. Lesion qualified as:  
 1) Minimal 3) Moderate  
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TDMS No. 20009 - 04  
 Test Type: CHRONIC  
 Route: DOSED WATER  
 Species/Strain: MICE/B6C3F1

**P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL**  
 beta-Picoline  
 CAS Number: 108-99-6

Date Report Requested: 05/27/2011  
 Time Report Requested: 09:52:36  
 First Dose M/F: 11/09/04 / 11/08/04  
 Lab: BAT

|  |             |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                              |                       |                       |
|--|-------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|------------------------------|-----------------------|-----------------------|
| <b>B6C3F1 MICE FEMALE</b><br><br><b>625 mg/l</b> | DAY ON TEST | 0<br>7<br>2<br>9      | 0<br>7<br>3<br>1      | 0<br>7<br>0<br>4      | 0<br>7<br>0<br>4      | 0<br>7<br>3<br>1      | 0<br>7<br>2<br>9      | 0<br>7<br>3<br>0      | 0<br>7<br>2<br>9      | 0<br>7<br>3<br>2      | 0<br>7<br>3<br>3      | 0<br>7<br>2<br>1      | 0<br>7<br>3<br>9      | 0<br>7<br>3<br>0      | 0<br>7<br>2<br>1      | 0<br>7<br>2<br>9      | 0<br>7<br>2<br>9      | 0<br>7<br>3<br>0      | 0<br>7<br>3<br>1      | 0<br>7<br>4<br>4      | 0<br>7<br>6<br>3      | 0<br>7<br>6<br>7      | 0<br>7<br>3<br>3      | 0<br>7<br>3<br>0      | <b>females<br/>(cont...)</b> |                       |                       |
|  | ANIMAL ID   | 0<br>0<br>3<br>0<br>1 | 0<br>0<br>3<br>0<br>2 | 0<br>0<br>3<br>0<br>3 | 0<br>0<br>3<br>0<br>4 | 0<br>0<br>3<br>0<br>5 | 0<br>0<br>3<br>0<br>6 | 0<br>0<br>3<br>0<br>7 | 0<br>0<br>3<br>0<br>8 | 0<br>0<br>3<br>0<br>9 | 0<br>0<br>3<br>0<br>0 | 0<br>0<br>3<br>0<br>1 | 0<br>0<br>3<br>0<br>2 | 0<br>0<br>3<br>0<br>3 | 0<br>0<br>3<br>0<br>4 | 0<br>0<br>3<br>0<br>5 | 0<br>0<br>3<br>0<br>6 | 0<br>0<br>3<br>0<br>7 | 0<br>0<br>3<br>0<br>8 | 0<br>0<br>3<br>0<br>9 | 0<br>0<br>3<br>0<br>0 | 0<br>0<br>3<br>0<br>1 | 0<br>0<br>3<br>0<br>2 | 0<br>0<br>3<br>0<br>3 |                              | 0<br>0<br>3<br>0<br>4 | 0<br>0<br>3<br>0<br>5 |
|  |             |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                              |                       |                       |

|  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Adrenal Medulla                            | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Islets, Pancreatic Hyperplasia             | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | 2 |
| Parathyroid Gland Hyperplasia              | + | + | + | + | + | M | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + |   |
|  |   |   |   | 3 |   |   |   |   |   |   |   |   | 1 |   |   |   |   |   |   |   |   |   |   |   |   |
| Pituitary Gland Pars Distalis, Hyperplasia | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + |
|  | 2 | 2 | 3 |   |   |   | 2 |   |   |   |   | 3 | 2 |   |   |   |   |   |   |   |   |   | 2 | 2 | 2 |
| Thyroid Gland Follicular Cell, Hypertrophy | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + |

**GENERAL BODY SYSTEM**

NONE

**GENITAL SYSTEM**

|  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Clitoral Gland                                     | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | M | + | + | + | + |
| Ovary Cyst Thrombosis                              | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |
|  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 3 | 4 |   |   | 2 |   |   | 3 |   |
|  |   |   |   |   |   |   |   |   |   |   |   | 4 |   |   |   |   |   |   |   | 4 |   |   |   |   |   |
| Uterus Thrombosis Endometrium, Hyperplasia, Cystic | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |
|  |   |   |   | 2 |   | 4 |   |   | 2 |   | 3 | 4 | 4 | 4 |   | 2 | 4 | 4 |   | 3 | 4 | 4 |   | 4 | 4 |

\* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade  
 + .. Tissue examined microscopically  
 X .. Lesion present  
 I .. Insufficient tissue  
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 1) Minimal 3) Moderate  
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TDMS No. 20009 - 04  
 Test Type: CHRONIC  
 Route: DOSED WATER  
 Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

beta-Picoline  
 CAS Number: 108-99-6

Date Report Requested: 05/27/2011  
 Time Report Requested: 09:52:36  
 First Dose M/F: 11/09/04 / 11/08/04  
 Lab: BAT

|                           |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|---------------------------|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| <b>B6C3F1 MICE FEMALE</b> | DAY ON TEST | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |   |   |   |
|                           | ANIMAL ID   | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |
| <b>625 mg/l</b>           |             | 2 | 3 | 0 | 0 | 3 | 2 | 3 | 2 | 2 | 3 | 3 | 2 | 3 | 0 | 3 | 2 | 3 | 2 | 2 | 3 | 1 | 4 | 4 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
|                           |             | 9 | 1 | 4 | 4 | 1 | 9 | 0 | 9 | 0 | 1 | 9 | 1 | 9 | 0 | 9 | 1 | 9 | 0 | 9 | 0 | 9 | 0 | 2 | 3 | 1 | 4 | 3 | 7 | 1 | 3 | 1 | 3 | 0 | 3 | 0 | 3 | 0 | 3 | 0 |
|                           |             | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|                           |             | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
|                           |             | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|                           |             | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |

females  
(cont...)

HEMATOPOIETIC SYSTEM

|   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Bone Marrow   | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |
| Lymph Node<br>Lumbar, Hemorrhage<br>Renal, Ectasia    |   |   |   | + |   |   |   |   |   |   | + | + |   |   |   |   |   |   |   |   |   |   | + |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Lymph Node, Mandibular<br>Hyperplasia, Lymphoid       | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Lymph Node, Mesenteric<br>Hemorrhage                  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Spleen<br>Hematopoietic Cell Proliferation            | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Thymus<br>Amyloid Deposition<br>Hyperplasia, Lymphoid | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |

INTEGUMENTARY SYSTEM

|                             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|-----------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Mammary Gland               | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Skin<br>Inflammation, Acute | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |

MUSCULOSKELETAL SYSTEM

\* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade  
 + .. Tissue examined microscopically  
 X .. Lesion present  
 I .. Insufficient tissue  
 M .. Missing tissue  
 A .. Autolysis precludes evaluation  
 BLANK .. Not examined microscopically  
 1-4 .. Lesion qualified as:  
 1) Minimal 3) Moderate  
 2) Mild 4) Marked



TDMS No. 20009 - 04  
 Test Type: CHRONIC  
 Route: DOSED WATER  
 Species/Strain: MICE/B6C3F1

**P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL**

beta-Picoline  
 CAS Number: 108-99-6

Date Report Requested: 05/27/2011  
 Time Report Requested: 09:52:36  
 First Dose M/F: 11/09/04 / 11/08/04  
 Lab: BAT

|                           |             |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |                              |
|---------------------------|-------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|------------------------------|
| <b>B6C3F1 MICE FEMALE</b> | DAY ON TEST | 0<br>7 | 0<br>7 | 0<br>7 | 0<br>7 | 0<br>7 | 0<br>7 | 0<br>7 | 0<br>7 | 0<br>7 | 0<br>7 | 0<br>7 | 0<br>7 | 0<br>7 | 0<br>7 | 0<br>3 | 0<br>7 | 0<br>7 | 0<br>7 | 0<br>7 | 0<br>7 | 0<br>7 | 0<br>6 | 0<br>6 | 0<br>7 | 0<br>7 | <b>females<br/>(cont...)</b> |
|                           | ANIMAL ID   | 2<br>9 | 3<br>1 | 0<br>4 | 0<br>4 | 3<br>1 | 2<br>9 | 3<br>0 | 2<br>9 | 2<br>0 | 3<br>1 | 3<br>9 | 2<br>1 | 3<br>1 | 0<br>9 | 3<br>0 | 2<br>9 | 3<br>0 | 2<br>9 | 2<br>0 | 3<br>0 | 1<br>2 | 4<br>3 | 4<br>7 | 3<br>1 | 3<br>0 |                              |
| <b>625 mg/l</b>           | 0<br>0      | 0<br>0 | 0<br>0 | 0<br>0 | 0<br>0 | 0<br>0 | 0<br>0 | 0<br>0 | 0<br>0 | 0<br>0 | 0<br>0 | 0<br>0 | 0<br>0 | 0<br>0 | 0<br>0 | 0<br>0 | 0<br>0 | 0<br>0 | 0<br>0 | 0<br>0 | 0<br>0 | 0<br>0 | 0<br>0 | 0<br>0 | 0<br>0 | 0<br>0 |                              |
|                           | 3<br>0      | 3<br>0 | 3<br>0 | 3<br>0 | 3<br>0 | 3<br>0 | 3<br>0 | 3<br>0 | 3<br>0 | 3<br>1 | 3<br>1 | 3<br>1 | 3<br>1 | 3<br>1 | 3<br>1 | 3<br>5 | 3<br>6 | 3<br>7 | 3<br>7 | 3<br>7 | 3<br>7 | 3<br>2 | 3<br>3 | 3<br>3 | 3<br>3 | 3<br>2 |                              |
|                           | 1<br>2      | 2<br>3 | 3<br>4 | 4<br>5 | 5<br>6 | 6<br>7 | 7<br>8 | 8<br>9 | 9<br>0 | 0<br>1 | 1<br>1 | 1<br>1 | 1<br>1 | 1<br>1 | 1<br>1 | 1<br>5 | 1<br>6 | 1<br>7 | 1<br>7 | 1<br>7 | 1<br>7 | 2<br>9 | 2<br>0 | 2<br>2 | 2<br>3 | 2<br>4 |                              |

**URINARY SYSTEM**

|                        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Kidney                 | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Amyloid Deposition     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 3 |   |   |   |   |   |   |   |   |
| Metaplasia, Osseous    |   |   |   |   |   |   | 1 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Mineralization         |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Nephropathy            |   |   | 2 |   | 1 | 2 | 1 | 1 | 1 | 1 |   | 1 | 3 | 1 | 3 |   |   | 2 |   |   |   |   | 2 | 2 | 1 |
| Renal Tubule, Necrosis |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Urinary Bladder        | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | A | + | + |

\* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade  
 + .. Tissue examined microscopically  
 X .. Lesion present  
 I .. Insufficient tissue

M .. Missing tissue  
 A .. Autolysis precludes evaluation  
 BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:  
 1) Minimal 3) Moderate  
 2) Mild 4) Marked





TDMS No. 20009 - 04  
 Test Type: CHRONIC  
 Route: DOSED WATER  
 Species/Strain: MICE/B6C3F1

**P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL**

beta-Picoline  
 CAS Number: 108-99-6

Date Report Requested: 05/27/2011  
 Time Report Requested: 09:52:36  
 First Dose M/F: 11/09/04 / 11/08/04  
 Lab: BAT

| B6C3F1 MICE FEMALE<br>625 mg/l                   | DAY ON TEST |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       | * TOTALS |                |
|--|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|----------------|
|  | 0729        | 0648  | 0660  | 0549  | 0731  | 0771  | 0777  | 0777  | 0777  | 0777  | 0577  | 0777  | 0777  | 0777  | 0777  | 0777  | 0777  | 0676  | 0777  | 0777  | 0666  |          | 0667           |
| ANIMAL ID  | 00326       | 00332 | 00333 | 00333 | 00333 | 00333 | 00333 | 00333 | 00333 | 00333 | 00333 | 00333 | 00333 | 00333 | 00333 | 00333 | 00333 | 00333 | 00333 | 00333 | 00333 | 00333    | 00333          |
| Fat, Necrosis                                    | 2           |       |       |       |       |       |       |       |       |       | 2     | 2     |       |       |       |       | 2     |       |       |       | 2     |          | 13 2.0         |
| Pancreas Atrophy                                 | +           | A     | +     | A     | +     | +     | +     | +     | +     | +     | A     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +        | 46 2 1.0       |
| Salivary Glands                                  | +           | +     | +     | M     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | M     | +     | M     | +     | +        | 47 1 2.0       |
| Stomach, Forestomach Hyperplasia, Squamous Ulcer | +           | +     | +     | A     | +     | +     | +     | +     | +     | +     | 2     | +     | +     | +     | +     | +     | +     | A     | +     | +     | +     | +        | 45 3 2.0 1 3.0 |
| Stomach, Glandular Dysplasia Mineralization      | +           | A     | +     | A     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | A     | +     | +     | +     | A        | 41 1 2.0 1 2.0 |
| Tooth Dysplasia                                  |             |       |       | M     |       |       |       |       |       |       |       |       |       |       |       |       |       | +     |       |       |       | +        | 2 2            |
| <b>CARDIOVASCULAR SYSTEM</b>                     |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |                |
| Blood Vessel Mineralization                      |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       | +        | 1 1 3.0        |
| Heart Cardiomyopathy Mineralization              | +           | +     | +     | M     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +        | 49 7 1.1 1 2.0 |
| <b>ENDOCRINE SYSTEM</b>                          |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |                |
| Adrenal Cortex Vacuolization Cytoplasmic         | +           | A     | +     | A     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | A     | +     | A     | +     | +        | 46 1 3.0       |

\* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade  
 + .. Tissue examined microscopically  
 X .. Lesion present  
 I .. Insufficient tissue

M .. Missing tissue  
 A .. Autolysis precludes evaluation  
 BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:  
 1) Minimal 3) Moderate  
 2) Mild 4) Marked

TDMS No. 20009 - 04  
 Test Type: CHRONIC  
 Route: DOSED WATER  
 Species/Strain: MICE/B6C3F1

**P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL**  
 beta-Picoline  
 CAS Number: 108-99-6

Date Report Requested: 05/27/2011  
 Time Report Requested: 09:52:36  
 First Dose M/F: 11/09/04 / 11/08/04  
 Lab: BAT

| B6C3F1 MICE FEMALE<br>625 mg/l                     | DAY ON TEST |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       | * TOTALS |       |       |                       |             |
|--|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|-------|-------|-----------------------|-------------|
|  | 0729        | 0648  | 0620  | 0549  | 0771  | 0771  | 0777  | 0777  | 0777  | 0777  | 0577  | 0777  | 0777  | 0777  | 0777  | 0777  | 0676  | 0777  | 0777  | 0777  |          | 0666  | 0666  | 0777                  |             |
| ANIMAL ID  | 00326       | 00327 | 00328 | 00329 | 00330 | 00331 | 00332 | 00333 | 00334 | 00335 | 00336 | 00337 | 00338 | 00339 | 00340 | 00341 | 00342 | 00343 | 00344 | 00345 | 00346    | 00347 | 00348 |                       |             |
| Adrenal Medulla                                    | +           | A     | +     | A     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | A     | +     | A     | +     | +        | +     | +     | 46                    |             |
| Islets, Pancreatic Hyperplasia                     | +           | A     | +     | A     | +     | +     | +     | +     | +     | +     | A     | +     | +     | +     | +     | +     | +     | A     | +     | +     | +        | +     | +     | 45<br>1 2.0           |             |
| Parathyroid Gland Hyperplasia                      | +           | +     | +     | M     | +     | M     | +     | +     | +     | +     | +     | +     | M     | M     | +     | +     | M     | M     | M     | +     | +        | +     | M     | +                     | 40<br>2 2.0 |
| Pituitary Gland Pars Distalis, Hyperplasia         | +           | +     | +     | M     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | M     | +        | +     | +     | 47<br>13 2.3          |             |
| Thyroid Gland Follicular Cell, Hypertrophy         | +           | A     | +     | M     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | A     | +     | M     | +        | +     | +     | 45<br>1 2.0           |             |
| <b>GENERAL BODY SYSTEM</b>                         |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |       |       |                       |             |
| NONE   |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |       |       |                       |             |
| <b>GENITAL SYSTEM</b>                              |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |       |       |                       |             |
| Clitoral Gland                                     | +           | +     | +     | I     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +        | +     | +     | 48                    |             |
| Ovary Cyst Thrombosis                              | +           | +     | +     | A     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | A     | +     | +     | +        | +     | +     | 48<br>5 3.0<br>2 4.0  |             |
| Uterus Thrombosis Endometrium, Hyperplasia, Cystic | +           | +     | +     | A     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +        | +     | +     | 49<br>1 4.0<br>33 3.4 |             |

\* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade  
 + .. Tissue examined microscopically  
 X .. Lesion present  
 I .. Insufficient tissue  
 M .. Missing tissue  
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 BLANK .. Not examined microscopically  
 1-4 .. Lesion qualified as:  
 1) Minimal 3) Moderate  
 2) Mild 4) Marked

**TDMS No.** 20009 - 04  
**Test Type:** CHRONIC  
**Route:** DOSED WATER  
**Species/Strain:** MICE/B6C3F1

**P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL**  
 beta-Picoline  
**CAS Number:** 108-99-6

**Date Report Requested:** 05/27/2011  
**Time Report Requested:** 09:52:36  
**First Dose M/F:** 11/09/04 / 11/08/04  
**Lab:** BAT

|  |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|--|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| <b>B6C3F1 MICE FEMALE</b><br><br><b>625 mg/l</b> | DAY ON TEST | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|  |             | 7 | 6 | 6 | 5 | 7 | 7 | 7 | 7 | 7 | 5 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 6 | 7 | 7 | 7 | 7 | 6 | 6 | 6 | 7 | 6 | 6 | 7 | 7 | 7 | 7 | 7 |
|  |             | 2 | 4 | 2 | 4 | 3 | 3 | 2 | 3 | 3 | 2 | 3 | 2 | 2 | 3 | 3 | 3 | 1 | 3 | 1 | 3 | 1 | 3 | 1 | 8 | 6 | 6 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
|  |             | 9 | 8 | 0 | 9 | 1 | 1 | 0 | 9 | 0 | 1 | 2 | 1 | 9 | 0 | 1 | 0 | 7 | 0 | 1 | 0 | 7 | 6 | 9 | 9 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| ANIMAL ID  | 0           | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|  | 0           | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|  | 3           | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
|  | 2           | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 5 | 5 |
|  | 6           | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| <b>* TOTALS</b>                                  |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |

**HEMATOPOIETIC SYSTEM**

|   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |           |           |            |            |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------|-----------|------------|------------|
| Bone Marrow   | + | A | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | +         | <b>48</b> |            |            |
| Lymph Node  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |           | <b>6</b>  |            |            |
| Lumbar, Hemorrhage                                    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |           | <b>1</b>  | <b>3.0</b> |            |
| Renal, Ectasia  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |           | <b>1</b>  | <b>4.0</b> |            |
| Lymph Node, Mandibular<br>Hyperplasia, Lymphoid       | + | + | + | M | + | + | + | + | + | + | + | + | + | + | + | + | A | + | M | + | + | + | + | + | + | + | + | + | + | + | + | + | <b>47</b> | <b>1</b>  | <b>3.0</b> |            |
| Lymph Node, Mesenteric<br>Hemorrhage                  | + | A | + | A | + | + | + | + | + | + | A | + | + | + | + | + | A | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | +         | <b>45</b> | <b>1</b>   | <b>3.0</b> |
| Spleen<br>Hematopoietic Cell Proliferation            | + | A | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | A | + | + | + | + | + | A | + | + | + | + | + | + | +         | <b>45</b> | <b>5</b>   | <b>2.2</b> |
| Thymus<br>Amyloid Deposition<br>Hyperplasia, Lymphoid | + | + | + | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | +         | <b>48</b> | <b>1</b>   | <b>2.0</b> |
|   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |           | <b>1</b>  | <b>2.0</b> |            |

**INTEGUMENTARY SYSTEM**

|                             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |           |          |            |
|-----------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------|----------|------------|
| Mammary Gland               | + | + | + | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | <b>49</b> |          |            |
| Skin<br>Inflammation, Acute | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | <b>50</b> | <b>1</b> | <b>3.0</b> |

**MUSCULOSKELETAL SYSTEM**

\* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade  
 + .. Tissue examined microscopically  
 X .. Lesion present  
 I .. Insufficient tissue

M .. Missing tissue  
 A .. Autolysis precludes evaluation  
 BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:  
 1) Minimal 3) Moderate  
 2) Mild 4) Marked

TDMS No. 20009 - 04  
 Test Type: CHRONIC  
 Route: DOSED WATER  
 Species/Strain: MICE/B6C3F1

**P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL**  
 beta-Picoline  
 CAS Number: 108-99-6

Date Report Requested: 05/27/2011  
 Time Report Requested: 09:52:36  
 First Dose M/F: 11/09/04 / 11/08/04  
 Lab: BAT

| B6C3F1 MICE FEMALE<br>625 mg/l                | DAY ON TEST |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       | * TOTALS |       |       |
|---|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|-------|-------|
|   | 0729        | 0648  | 0624  | 0544  | 0733  | 0733  | 0772  | 0772  | 0772  | 0772  | 0577  | 0772  | 0772  | 0772  | 0772  | 0772  | 0772  | 0676  | 0772  | 0772  |          | 0666  | 0666  |
| ANIMAL ID                                     | 00326       | 00332 | 00332 | 00332 | 00333 | 00333 | 00333 | 00333 | 00333 | 00333 | 00333 | 00333 | 00333 | 00333 | 00333 | 00333 | 00333 | 00333 | 00333 | 00333 | 00333    | 00333 | 00333 |
| Bone  | +           | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +        | +     | 50    |
| <b>NERVOUS SYSTEM</b>                         |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |       |       |
| Brain   | +           | A     | +     | M     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | M     | +     | +        | +     | 47    |
| <b>RESPIRATORY SYSTEM</b>                     |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |       |       |
| Lung  | +           | +     | +     | M     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +        | 49    |       |
| Inflammation, Acute                           |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       | 3     |          |       | 1 3.0 |
| Mineralization                                |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       | 2     |          |       | 2 2.0 |
| Alveolar Epithelium, Hyperplasia              | 1           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |       | 3 1.3 |
| Alveolus, Infiltration Cellular, Histiocyte   |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |       | 1 2.0 |
| Bronchiole, Hyperplasia                       |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       | 1        |       | 3 2.0 |
| Nose  | +           | +     | +     | M     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +        | 49    |       |
| Olfactory Epithelium, Atrophy                 |             |       |       |       |       |       |       |       |       |       |       |       | 1     |       |       |       |       |       |       |       |          | 1     | 2 1.0 |
| Olfactory Epithelium, Metaplasia, Respiratory |             |       |       |       |       |       |       | 1     | 1     |       | 1     |       |       |       |       |       |       | 1     | 1     |       |          | 1     | 7 1.0 |
| Respiratory Epithelium, Hyperplasia           |             |       |       |       | 1     |       |       | 1     |       |       |       |       |       |       |       |       |       |       |       | 1     |          |       | 6 1.0 |
| Trachea                                       | +           | A     | +     | M     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | A     | +     | A     | +     | +        | A     | 45    |
| <b>SPECIAL SENSES SYSTEM</b>                  |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |       |       |
| Eye   | +           | A     | A     | M     | +     | +     | +     | +     | +     | +     | A     | +     | +     | +     | +     | +     | +     | A     | +     | M     | +        | M     | 36    |
| Degeneration                                  |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |       | 1 3.0 |
| Harderian Gland                               | +           | +     | +     | M     | +     | +     | +     | +     | +     | +     | A     | +     | +     | +     | +     | +     | +     | A     | +     | M     | +        | +     | 43    |
| Hyperplasia                                   | 2           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |       | 1 2.0 |
| Inflammation, Chronic                         |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |       | 1 1.0 |

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 + .. Tissue examined microscopically  
 X .. Lesion present  
 I .. Insufficient tissue  
 M .. Missing tissue  
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 BLANK .. Not examined microscopically  
 1-4 .. Lesion qualified as:  
 1) Minimal 3) Moderate  
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TDMS No. 20009 - 04  
Test Type: CHRONIC  
Route: DOSED WATER  
Species/Strain: MICE/B6C3F1

**P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL**  
beta-Picoline  
CAS Number: 108-99-6

Date Report Requested: 05/27/2011  
Time Report Requested: 09:52:36  
First Dose M/F: 11/09/04 / 11/08/04  
Lab: BAT

| B6C3F1 MICE FEMALE<br>1250 mg/l | DAY ON TEST                                       | 0   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | females<br>(cont...) |
|---------------------------------|---|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|----------------------|
|                                 |   | 7 7 7 7 7 7 6 7 6 7 7 7 7 6 5 5 6 6 7 7 7 7<br>2 2 2 2 1 3 6 2 1 2 3 2 2 3 7 3 8 3 4 3 3 3 2 2 2 4<br>9 9 9 9 6 1 9 9 2 2 0 9 9 0 7 3 2 2 7 0 0 1 1 2 2 8 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                      |
| ANIMAL ID                       | 0       |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                      |
|                                 | 0       |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                      |
|                                 | 3       |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                      |
|                                 | 5 5 5 5 5 5 5 5 5 6 6 6 6 6 6 6 6 6 7 7 7 7       |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                      |
|                                 | 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                      |

**ALIMENTARY SYSTEM**

|                                      |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|--------------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Esophagus                            | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |   |   |
| Gallbladder<br>Degeneration, Hyaline | + | + | + | + | A | + | + | + | A | A | + | + | + | + | A | + | A | + | A | + | + | M | A | + | + |   |
| Intestine Large, Cecum               | + | + | + | + | A | + | + | + | + | A | + | + | + | + | A | + | A | + | A | + | + | + | A | + | + |   |
| Intestine Large, Colon               | + | + | + | + | A | + | + | + | A | A | + | + | + | + | A | + | A | + | A | + | + | + | A | + | + |   |
| Intestine Large, Rectum              | + | + | + | + | A | + | + | + | A | A | + | + | + | + | A | + | A | + | A | + | + | + | A | + | + |   |
| Intestine Small, Duodenum            | + | + | + | + | A | + | + | + | A | A | + | + | + | + | A | + | A | A | A | + | + | + | A | + | + |   |
| Intestine Small, Ileum               | + | + | + | + | A | + | + | + | A | A | + | + | + | + | A | + | A | + | A | + | + | + | A | + | + |   |
| Intestine Small, Jejunum             | + | + | + | + | A | + | + | + | A | A | + | + | + | + | + | + | A | A | A | + | + | + | A | + | + |   |
| Liver                                | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |
| Angiectasis                          |   |   |   |   |   |   |   |   |   |   | 3 |   |   | 1 |   |   |   |   | 3 |   |   |   |   |   |   |   |
| Basophilic Focus                     |   |   |   |   |   |   |   | X |   |   |   |   |   | X |   |   |   |   |   |   |   | X |   |   |   |   |
| Congestion                           |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Eosinophilic Focus                   |   |   | X | X |   |   |   | X |   |   |   |   | X | X |   |   |   |   | X |   |   |   | X | X | X | X |
| Fatty Change                         |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 2 |   |   |   |   |   |   |   |   |   |   |
| Mixed Cell Focus                     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Necrosis                             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Tension Lipidosis                    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 2 |   |
| Mesentery                            |   |   | + | + |   |   |   |   |   |   |   |   |   |   |   |   |   | + |   |   |   |   |   |   | + |   |

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+ .. Tissue examined microscopically  
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TDMS No. 20009 - 04  
 Test Type: CHRONIC  
 Route: DOSED WATER  
 Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL  
 beta-Picoline  
 CAS Number: 108-99-6

Date Report Requested: 05/27/2011  
 Time Report Requested: 09:52:36  
 First Dose M/F: 11/09/04 / 11/08/04  
 Lab: BAT

| B6C3F1 MICE FEMALE<br>1250 mg/l            | DAY ON TEST      |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  | ANIMAL ID | females<br>(cont...) |                  |                  |                  |                  |
|--|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|-----------|----------------------|------------------|------------------|------------------|------------------|
|  | 0<br>7<br>2<br>9 | 0<br>7<br>2<br>9 | 0<br>7<br>2<br>9 | 0<br>7<br>2<br>9 | 0<br>7<br>1<br>6 | 0<br>7<br>3<br>1 | 0<br>7<br>6<br>9 | 0<br>7<br>6<br>2 | 0<br>7<br>1<br>2 | 0<br>7<br>2<br>3 | 0<br>7<br>2<br>2 | 0<br>7<br>7<br>9 | 0<br>7<br>7<br>9 | 0<br>7<br>7<br>9 | 0<br>7<br>7<br>0 | 0<br>6<br>6<br>7 | 0<br>5<br>5<br>3 | 0<br>5<br>8<br>2 | 0<br>6<br>3<br>2 | 0<br>6<br>4<br>7 |           |                      | 0<br>7<br>3<br>0 | 0<br>7<br>3<br>1 | 0<br>7<br>2<br>1 | 0<br>7<br>2<br>2 |
| Fat, Necrosis                              | 2                |                  | 2                |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  | 2         |                      |                  |                  |                  |                  |
| Pancreas Atrophy                           | +                | +                | +                | +                | +                | +                | +                | +                | +                | A                | +                | +                | +                | +                | +                | +                | +                | +                | A                | +                | +         | +                    | +                | +                | +                | +                |
| Salivary Glands Inflammation, Chronic      | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +         | +                    | +                | +                | +                | +                |
| Stomach, Forestomach Hyperplasia, Squamous | +                | +                | +                | +                | +                | +                | +                | +                | A                | +                | +                | +                | +                | +                | +                | +                | A                | +                | +                | +                | +         | +                    | A                | +                | +                |                  |
| Stomach, Glandular                         | +                | +                | +                | +                | A                | +                | +                | +                | A                | A                | +                | +                | +                | +                | +                | +                | A                | +                | A                | +                | +         | +                    | A                | +                | +                |                  |
| Tongue                                     |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  | +         |                      |                  |                  |                  |                  |
| Tooth Dysplasia                            |                  | +                |                  |                  | +                |                  |                  | +                |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |           | +                    | +                |                  |                  |                  |
|  |                  | X                |                  |                  | X                |                  |                  | X                |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |           | X                    | X                |                  |                  |                  |

**CARDIOVASCULAR SYSTEM**

|                                      |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|--------------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Heart                                | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Cardiomyopathy                       |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 |   |   |   |   |   |   | 1 |   |
| Inflammation, Suppurative            |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Artery, Inflammation, Chronic Active |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 3 |   |   |   |   |   |   |   |   |

**ENDOCRINE SYSTEM**

|                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Adrenal Cortex | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Hyperplasia    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 2 |   |   |   |   |   |   |   |   |
| Hypertrophy    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |

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TDMS No. 20009 - 04  
 Test Type: CHRONIC  
 Route: DOSED WATER  
 Species/Strain: MICE/B6C3F1

**P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL**  
 beta-Picoline  
 CAS Number: 108-99-6

Date Report Requested: 05/27/2011  
 Time Report Requested: 09:52:36  
 First Dose M/F: 11/09/04 / 11/08/04  
 Lab: BAT

| B6C3F1 MICE FEMALE<br>1250 mg/l   | DAY ON TEST |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | ANIMAL ID | females<br>(cont...) |
|---|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----------|----------------------|
|   | 0729        | 0729 | 0729 | 0721 | 0731 | 0731 | 0731 | 0731 | 0731 | 0731 | 0731 | 0731 | 0731 | 0731 | 0731 | 0731 | 0731 | 0731 | 0731 | 0731 |           |                      |
| Adrenal Medulla   | +           | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +         | +                    |
| Islets, Pancreatic<br>Hyperplasia   | +           | +    | +    | +    | +    | +    | +    | +    | A    | +    | +    | +    | +    | +    | +    | +    | +    | A    | +    | +    | +         | +                    |
| Parathyroid Gland   | +           | M    | +    | +    | +    | +    | +    | M    | +    | +    | M    | +    | +    | +    | M    | +    | +    | +    | +    | +    | +         | +                    |
| Pituitary Gland<br>Pars Distalis, Angiectasis<br>Pars Distalis, Hyperplasia | +           | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | I    | +    | +         | +                    |
| Thyroid Gland<br>Cyst<br>Follicular Cell, Hyperplasia                       | +           | +    | +    | +    | A    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +         | +                    |

**GENERAL BODY SYSTEM**

NONE

**GENITAL SYSTEM**

|   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Clitoral Gland                            | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Ovary<br>Cyst<br>Thrombosis               | + | + | + | + | + | + | + | + | M | + | + | + | + | + | + | A | + | + | + | + | + | + |
| Uterus<br>Inflammation, Acute<br>Necrosis | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |

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TDMS No. 20009 - 04  
 Test Type: CHRONIC  
 Route: DOSED WATER  
 Species/Strain: MICE/B6C3F1

**P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL**  
 beta-Picoline  
 CAS Number: 108-99-6

Date Report Requested: 05/27/2011  
 Time Report Requested: 09:52:36  
 First Dose M/F: 11/09/04 / 11/08/04  
 Lab: BAT

| B6C3F1 MICE FEMALE<br>1250 mg/l | DAY ON TEST |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       | females<br>(cont...)  |                       |                       |                       |                       |                       |                       |                       |                       |   |
|---------------------------------|-------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|---|
|                                 |             | 0<br>7<br>2<br>9      | 0<br>7<br>2<br>9      | 0<br>7<br>2<br>9      | 0<br>7<br>2<br>9      | 0<br>7<br>1<br>6      | 0<br>7<br>3<br>1      | 0<br>7<br>6<br>9      | 0<br>7<br>2<br>2      | 0<br>7<br>1<br>2      | 0<br>7<br>2<br>0      | 0<br>7<br>2<br>2      | 0<br>7<br>3<br>9      | 0<br>7<br>2<br>2      | 0<br>7<br>3<br>0      | 0<br>7<br>7<br>7      | 0<br>6<br>5<br>3      | 0<br>5<br>8<br>2      | 0<br>6<br>3<br>2      | 0<br>6<br>4<br>7      | 0<br>7<br>3<br>0      |                       | 0<br>7<br>3<br>1      | 0<br>7<br>3<br>1      | 0<br>7<br>2<br>1      | 0<br>7<br>2<br>4      | 0<br>6<br>4<br>8      |                       |                       |                       |   |
|                                 | ANIMAL ID   | 0<br>0<br>3<br>5<br>1 | 0<br>0<br>3<br>5<br>2 | 0<br>0<br>3<br>5<br>3 | 0<br>0<br>3<br>5<br>4 | 0<br>0<br>3<br>5<br>5 | 0<br>0<br>3<br>5<br>6 | 0<br>0<br>3<br>5<br>7 | 0<br>0<br>3<br>5<br>8 | 0<br>0<br>3<br>5<br>9 | 0<br>0<br>3<br>6<br>0 | 0<br>0<br>3<br>6<br>1 | 0<br>0<br>3<br>6<br>2 | 0<br>0<br>3<br>6<br>3 | 0<br>0<br>3<br>6<br>4 | 0<br>0<br>3<br>6<br>5 | 0<br>0<br>3<br>6<br>6 | 0<br>0<br>3<br>6<br>7 | 0<br>0<br>3<br>6<br>8 | 0<br>0<br>3<br>6<br>9 | 0<br>0<br>3<br>7<br>0 | 0<br>0<br>3<br>7<br>1 | 0<br>0<br>3<br>7<br>2 | 0<br>0<br>3<br>7<br>3 | 0<br>0<br>3<br>7<br>4 | 0<br>0<br>3<br>7<br>5 | 0<br>0<br>3<br>7<br>6 | 0<br>0<br>3<br>7<br>7 | 0<br>0<br>3<br>7<br>8 | 0<br>0<br>3<br>7<br>9 | 3 |

Hyperostosis

3

Skeletal Muscle

+

### NERVOUS SYSTEM

Brain

+ +

Hemorrhage

Peripheral Nerve

+

Spinal Cord

+

### RESPIRATORY SYSTEM

Lung

+ +

Hemorrhage

1

Alveolar Epithelium, Hyperplasia

1

Bronchiole, Hyperplasia

2

Nose

+ + + + + + + + + A + + + + + + + + + + + + A + +

Inflammation, Suppurative

Olfactory Epithelium, Atrophy

Olfactory Epithelium, Metaplasia, Respiratory

Respiratory Epithelium, Hyperplasia

1 1 1 1 1 1 1 1 1 1 1 1 1 2 2 1 2 1 1 1 1 1

Pleura

+

Trachea

+ + + + A + + + + A + + + + + + + + + + + + A + +

### SPECIAL SENSES SYSTEM

\* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

TDMS No. 20009 - 04  
 Test Type: CHRONIC  
 Route: DOSED WATER  
 Species/Strain: MICE/B6C3F1

**P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL**  
 beta-Picoline  
 CAS Number: 108-99-6

Date Report Requested: 05/27/2011  
 Time Report Requested: 09:52:36  
 First Dose M/F: 11/09/04 / 11/08/04  
 Lab: BAT

| B6C3F1 MICE FEMALE<br>1250 mg/l  | DAY ON TEST |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    | ANIMAL ID | females<br>(cont...) |
|--|-------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|-----------|----------------------|
|  | 07          | 07 | 07 | 07 | 07 | 07 | 07 | 07 | 07 | 07 | 07 | 07 | 07 | 07 | 07 | 07 | 07 | 07 | 07 | 07 | 07 | 07 | 07 | 07 | 07 |           |                      |
|  | 0           | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 000351    |                      |
| Eye<br>Degeneration<br>Cornea, Inflammation, Chronic Active                                    | +           | +  | +  | +  | M  | +  | +  | +  | A  | A  | +  | +  | +  | +  | A  | +  | A  | +  | A  | +  | +  | +  | A  | +  | +  |           |                      |
| Harderian Gland<br>Hyperplasia   | +           | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | A  | +  | A  | +  | +  | +  | +  | +  |           |                      |
| Zymbal's Gland   |             |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |           |                      |
| <b>URINARY SYSTEM</b>  |             |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |           |                      |
| Kidney<br>Inflammation, Suppurative<br>Mineralization<br>Nephropathy<br>Renal Tubule, Necrosis | +           | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | 000351    |                      |
|  |             |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |           |                      |
| Urinary Bladder<br>Inflammation, Chronic   | +           | +  | +  | +  | A  | +  | +  | +  | A  | A  | +  | M  | +  | +  | +  | +  | A  | +  | +  | +  | +  | +  | +  | +  |    |           |                      |
|  |             |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |           |                      |

\* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade  
 + .. Tissue examined microscopically  
 X .. Lesion present  
 I .. Insufficient tissue

M .. Missing tissue  
 A .. Autolysis precludes evaluation  
 BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:  
 1) Minimal 3) Moderate  
 2) Mild 4) Marked



TDMS No. 20009 - 04  
 Test Type: CHRONIC  
 Route: DOSED WATER  
 Species/Strain: MICE/B6C3F1

**P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL**  
 beta-Picoline  
 CAS Number: 108-99-6

Date Report Requested: 05/27/2011  
 Time Report Requested: 09:52:36  
 First Dose M/F: 11/09/04 / 11/08/04  
 Lab: BAT

| B6C3F1 MICE FEMALE<br>1250 mg/l            | DAY ON TEST |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       | * TOTALS |              |              |              |
|--|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|--------------|--------------|--------------|
|  | 0729        | 0731  | 0731  | 0732  | 0733  | 0733  | 0733  | 0733  | 0733  | 0733  | 0733  | 0733  | 0733  | 0733  | 0733  | 0733  | 0733  | 0733  | 0733  | 0733  | 0733  | 0733  | 0733  | 0733  |          | 0733         |              |              |
| ANIMAL ID                                  | 00376       | 00377 | 00378 | 00379 | 00380 | 00381 | 00382 | 00383 | 00384 | 00385 | 00386 | 00387 | 00388 | 00389 | 00390 | 00391 | 00392 | 00393 | 00394 | 00395 | 00396 | 00397 | 00398 | 00399 | 00400    |              |              |              |
| Fat, Necrosis                              | 2           | 2     |       |       |       | 2     |       |       | 2     |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       | 2        | <b>8 2.0</b> |              |              |
| Pancreas Atrophy                           | +           | +     | +     | +     | +     | +     | +     | +     | A     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | A     | +     | +        | A            | <b>45</b>    | <b>1 1.0</b> |
| Salivary Glands Inflammation, Chronic      | +           | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +        | <b>50</b>    | <b>1 2.0</b> |              |
| Stomach, Forestomach Hyperplasia, Squamous | +           | +     | +     | +     | +     | +     | +     | +     | +     | 3     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +        | <b>47</b>    | <b>3 2.7</b> |              |
| Stomach, Glandular                         | +           | +     | +     | +     | +     | +     | +     | +     | A     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | A     | +     | +        | A            | <b>41</b>    |              |
| Tongue                                     |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          | <b>1</b>     |              |              |
| Tooth Dysplasia                            |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          | <b>9</b>     | <b>9</b>     |              |

**CARDIOVASCULAR SYSTEM**

|                                      |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |           |              |
|--------------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------|--------------|
| Heart                                | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | <b>50</b> |              |
| Cardiomyopathy                       |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | <b>1</b>  | <b>3 1.0</b> |
| Inflammation, Suppurative            |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | <b>3</b>  | <b>1 3.0</b> |
| Artery, Inflammation, Chronic Active |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |           | <b>1 3.0</b> |

**ENDOCRINE SYSTEM**

|                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |           |              |
|----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------|--------------|
| Adrenal Cortex | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | <b>50</b> |              |
| Hyperplasia    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |           | <b>1 2.0</b> |
| Hypertrophy    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | <b>2</b>  | <b>1 2.0</b> |

\* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade  
 + .. Tissue examined microscopically  
 X .. Lesion present  
 I .. Insufficient tissue  
 M .. Missing tissue  
 A .. Autolysis precludes evaluation  
 BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:  
 1) Minimal 3) Moderate  
 2) Mild 4) Marked

TDMS No. 20009 - 04  
 Test Type: CHRONIC  
 Route: DOSED WATER  
 Species/Strain: MICE/B6C3F1

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL  
 beta-Picoline  
 CAS Number: 108-99-6

Date Report Requested: 05/27/2011  
 Time Report Requested: 09:52:36  
 First Dose M/F: 11/09/04 / 11/08/04  
 Lab: BAT

| B6C3F1 MICE FEMALE<br>1250 mg/l   | DAY ON TEST | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | * TOTALS             |                      |
|---|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----------------------|----------------------|
|   | ANIMAL ID   | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 5 | 7 | 4 | 6 | 5 | 7 |                      | 5                    |
|   |             | 2 | 3 | 3 | 3 | 2 | 3 | 3 | 3 | 6 | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 7 | 3 | 9 | 4 | 0 |                      | 3                    |
|   |             | 9 | 1 | 1 | 1 | 9 | 1 | 1 | 0 | 4 | 9 | 9 | 9 | 9 | 1 | 0 | 0 | 0 | 0 | 3 | 0 | 4 | 1 | 9 | 6                    |                      |
|   |             | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0                    |                      |
|   |             | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0                    |                      |
|   |             | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4                    |                      |
|   |             | 7 | 7 | 7 | 7 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 0                    |                      |
|   |             | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9                    |                      |
| Adrenal Medulla   |             | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50                   |                      |
| Islets, Pancreatic<br>Hyperplasia   |             | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | A | + | + | A | 45<br>1 3.0          |                      |
| Parathyroid Gland   |             | + | + | + | + | + | + | + | M | + | + | + | M | + | M | + | + | + | + | M | M | + | + | + | 41                   |                      |
| Pituitary Gland<br>Pars Distalis, Angiectasis<br>Pars Distalis, Hyperplasia |             | + | + | + | + | + | + | + | + | + | + | M | + | + | + | I | + | + | + | + | + | A | + | + | +                    | 46<br>1 2.0<br>7 2.4 |
| Thyroid Gland<br>Cyst<br>Follicular Cell, Hyperplasia                       |             | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49<br>2 2.5<br>1 2.0 |                      |

**GENERAL BODY SYSTEM**

NONE

**GENITAL SYSTEM**

|   |  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |                      |
|---|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----------------------|
| Clitoral Gland                            |  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50                   |
| Ovary<br>Cyst<br>Thrombosis               |  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | 47<br>4 3.0<br>4 4.0 |
| Uterus<br>Inflammation, Acute<br>Necrosis |  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | 49<br>2 3.5<br>1 4.0 |

\* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade  
 + .. Tissue examined microscopically  
 X .. Lesion present  
 I .. Insufficient tissue  
 M .. Missing tissue  
 A .. Autolysis precludes evaluation  
 BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:  
 1) Minimal 3) Moderate  
 2) Mild 4) Marked



TDMS No. 20009 - 04  
 Test Type: CHRONIC  
 Route: DOSED WATER  
 Species/Strain: MICE/B6C3F1

**P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL**  
 beta-Picoline  
 CAS Number: 108-99-6

Date Report Requested: 05/27/2011  
 Time Report Requested: 09:52:36  
 First Dose M/F: 11/09/04 / 11/08/04  
 Lab: BAT

| B6C3F1 MICE FEMALE | 1250 mg/l | DAY ON TEST          |                      |                      |                      |                      |                      |                      |                      |                      |                      |                      |                      |                      |                      |                      |                      |                      |                      |                      |                      | * TOTALS             |                      |
|--------------------|-----------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
|                    |           | 07<br>29             | 07<br>23             | 07<br>31             | 07<br>33             | 07<br>22             | 07<br>33             | 07<br>31             | 07<br>00             | 07<br>00             | 07<br>00             | 07<br>00             | 07<br>00             | 07<br>00             | 07<br>00             | 07<br>00             | 07<br>00             | 07<br>00             | 07<br>00             | 07<br>00             | 07<br>00             |                      | 07<br>00             |
|                    |           | 07<br>29             | 07<br>23             | 07<br>31             | 07<br>33             | 07<br>22             | 07<br>33             | 07<br>31             | 07<br>00             | 07<br>00             | 07<br>00             | 07<br>00             | 07<br>00             | 07<br>00             | 07<br>00             | 07<br>00             | 07<br>00             | 07<br>00             | 07<br>00             | 07<br>00             | 07<br>00             | 07<br>00             | 07<br>00             |
|                    |           | 00<br>33<br>77<br>67 | 00<br>33<br>77<br>67 | 00<br>33<br>77<br>67 | 00<br>33<br>77<br>67 | 00<br>33<br>77<br>67 | 00<br>33<br>77<br>67 | 00<br>33<br>77<br>67 | 00<br>33<br>77<br>67 | 00<br>33<br>77<br>67 | 00<br>33<br>77<br>67 | 00<br>33<br>77<br>67 | 00<br>33<br>77<br>67 | 00<br>33<br>77<br>67 | 00<br>33<br>77<br>67 | 00<br>33<br>77<br>67 | 00<br>33<br>77<br>67 | 00<br>33<br>77<br>67 | 00<br>33<br>77<br>67 | 00<br>33<br>77<br>67 | 00<br>33<br>77<br>67 | 00<br>33<br>77<br>67 | 00<br>33<br>77<br>67 |

Hyperostosis 1 3.0

Skeletal Muscle 1

**NERVOUS SYSTEM**

Brain Hemorrhage 50 1 1.0

Peripheral Nerve 1

Spinal Cord 1

**RESPIRATORY SYSTEM**

Lung Hemorrhage 50 1 1.0  
 Alveolar Epithelium, Hyperplasia 8 1.8  
 Bronchiole, Hyperplasia 1 2.0

Nose Inflammation, Suppurative 1 1.0  
 Olfactory Epithelium, Atrophy 7 1.3  
 Olfactory Epithelium, Metaplasia, Respiratory 14 1.2  
 Respiratory Epithelium, Hyperplasia 13 1.2

Pleura 1

Trachea 44

**SPECIAL SENSES SYSTEM**

\* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked



